Full Circle
THE INDEPENDENT MAGAZINE FOR THE UBUNTU LINUX COMMUNITY
ISSUE #214 - February 2025
ubuntu
UBUNTU 24.10
BUDGIE AND UNITY REVIEWS
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Issue #214

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Editorial

Welcome to the latest issue of Full Circle

This month we bring you more of the same goodness: Latex, Trading Up, Learn About and Inkscape. Articles are still sparse in this neck of the woods. So if you have any articles you can spare, now is your chance: *ronnie@fullcirclemagazine.org*.

Adam is reviewing Ubuntu 24.10. Is this deja vu? Sort of. This month he's taking a looking at Ubuntu with Budgie and Unity.

Is the Dell Latitude the greatest Linux laptop of all time? Yes? No? Well, we have an opinion piece on that, plus a C&C, Q&A and game review from Erik. He's back and with a vengeance.

Remember: the Full Circle Weekly News is available on Spotify and YouTube. The more upvotes and reviews you give it on those platforms the more exposure we get. And, we have a Table of Contents which lists every article from every issue of FCM. Huge thanks to Paul Romano for maintaining: *https://goo.gl/tpOKqm* and, if you're looking for some help, advice, or just a chinwag: remember that we have a Telegram group: *https://t.me/joinchat/24ec1oMFO1ZjZDc0*. I hope to see you there. Come and say hello.

All the best for 2025! Ronnie
ronnie@fullcirclemagazine.org

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NEWS

Submitted by ErikTheUnread

Full Circle Weekly News

http://fullcirclemagazine.org/feed/podcast

http://www.stitcher.com/s?fid=85347&refid=stpr

http://tunein.com/radio/Full-Circle-Weekly-News-p855064/

https://player.fm/series/the-full-circle-weekly-news

Week 5

Release of Hangover 10.0:

27/01/2025

The Hangover 10.0 toolkit is out. It allows running 32-bit Windows applications built for x86 (i386) and ARM32 architectures in ARM64 (Aarch64)-based environments. An implementation of the Hangover for the RISC-V architecture is currently under development. The project's code is distributed under a LGPL 2.1 license.

Hangover significantly outperforms configurations in which Wine is launched entirely in emulation mode, since when using Hangover, the emulator is used only to execute the application code itself, and all system calls, libraries, and Wine components are executed outside the emulator in the native execution for the current platform (Hangover breaks the emulation chain at the level of calls to win32 and wine). The emulation layer can use QEMU, FEX and Box64 emulators, depending on the user's preferences. Work has begun, but is not yet complete, on supporting the Blink emulator.

https://github.com/AndreRH/hangover/releases/tag/hangover-10.0

Orbitiny DE using Qt Released:

27/01/2025

The Orbitiny Desktop environment is presented, written from scratch using the Qt framework. The project is presented as an attempt to combine some innovative ideas, that have not been seen in user environments before, with traditional elements such as the panel, menus and placement of icons, on the desktop. The project is being developed with an eye to ensuring portability between different Linux distributions and the possibility of using it in Live environments. The code is written

in C++ and is distributed under the GPL license.

The panel supports functionality expansion through plug-ins,Drag&Drop mode manipulations (for example, you can move files from the desktop to the panel and swap applets) and saving different profiles that define their own set of applets and settings. Eighteen plugins are currently provided, like an applet with the implementation of a start menu for navigating through installed applications.

In addition to the menu and keyboard shortcuts, screen gestures can be used to call up various actions and operations in Orbitiny. These are entered by drawing a certain outline on an empty area of the desktop while holding down the mouse button. Up to 12 screen gestures can be defined for each mouse button.

In addition to the desktop and taskbar, the project develops its own set of utilities and applications, such as a file manager, notification output system, file search interface, and a program for creating screenshots. The desktop can be launched in any existing user environment, including KDE and GNOME - in this case, Orbitiny displays its own full-screen window with the desktop, overlapping the existing desktop.

https://www.reddit.com/r/linux/comments/1iayzwm/orbitiny_desktop_environment_released_originally/

Hyprland 0.47 released:

27/01/2025

The Hyprland 0.47 composite server is presented, using the Wayland protocol. The project is focused on the mosaic (tiling) layout of windows, but also supports the classic arbitrary placement of windows, grouping of windows in the form of tabs, pseudo-mosaic mode and full-screen windows. The possibilities for creating visually attractive interfaces are provided: gradients in the window frame, background blur, animation effects and shadows. Plug-ins can be connected to expand the functionality and socket-based IPC is provided for

external control. The code is written in C++ and is distributed under a BSD license.

The settings are made via a configuration file, changes are picked up on the fly, without restarting. To improve the performance of games, you can disable vertical synchronization (VSync) with a frame blanking pulse, used to protect against tearing during output. The following functions are also worth mentioning: dynamically created virtual desktops; modes for arranging elements on the screen; global processing of hot keys and touchpad/touch screen gesture control.

https://hyprland.org/news/update47/

Google Opens Up OS Code for Pebble Smartwatch:

28/01/2025

Google has announced the open source code of the Pebble OS operating system used in the Pebble smartwatch. The code is written in C and is open under the Apache 2.0 license. The system is based on the FreeRTOS kernel and the Newlib system library. The platform is designed for use on ARM Cortex-M microcontrollers.

The Pebble smartwatch project raised $10.3 million on the crowdfunding site Kickstarter in 2012 and $20.3 million in 2015 (the second-highest amount of money raised on Kickstarter). The watch was manufactured from 2013 to 2016 by Pebble Technology, which was shut down in 2016 after being acquired by Fitbit. Google acquired the rights to the Pebble operating system after buying Fitbit, along with other assets.

The watch is equipped with an e-paper screen, which allows for a long battery life. The watch integrates with Android and iOS devices via Bluetooth and can display notifications and messages from those smartphones (for example, notifications of incoming calls and calendar / planner events, information about new SMS's, email and messages from popular messengers). The libpebble library is provided for interaction

with the watch from Linux.

The platform supports installation of additional programs on the watch, distributed through the online catalog. More than 10 thousand third-party applications have been developed for the watch, offering functions from viewing news feeds and displaying reandom information on the screen (for example, stock quotes), to navigation, remote control of the smartphone camera, fitness trackers and simple games.

The Pebble OS code is published as is, and includes a fresh snapshot of the repository, with the proprietary spying components removed. The open source code covers all the core features of the smartwatch, including the user interface, the GUI library, the notification system, the framework for installing third-party programs, the Jerryscript Javascript engine, basic applications such as the fitness tracker, and the media playback control interface.

Due to lack of relicensing rights, the published code base has been stripped of system fonts, Bluetooth stack, STM library, voice codec, ARM CMSIS, and heart rate monitoring driver. The published repository is not an official Google project - Google positions the open source code as an initiative to support enthusiasts interested in continuing the development of the platform.

At the same time, the founder of Pebble announced the revival of the project and the intention to release a new model of watches. It is noted that he tried all the smart watches available on the market, but none of the devices completely satisfied him, so he decided to revive the former undertaking and release a new model of Pebble. The next model will have approximately the same parameters and capabilities as the already released Pebble watches, but will differ in the implementation of some new ideas.

https://opensource.googleblog.com/2025/01/see-code-that-powered-pebble-smartwatches.html

Release of Privoxy 4.0.0:

28/01/2025

Twenty two years after the formation of the 3.0 branch in 2002, the Privoxy 4.0.0 proxy server was released, designed to create personal web content filters. With Privoxy, you can cut out ads, discard tracking cookies, delete pop-up dialogs, block the loading of third-party JavaScript code, and make arbitrary changes to web pages as required by the user. Privoxy supports installation both on local systems of individual users and on servers to create a centralized content filtering infrastructure in a local network. The project code is written in C and is distributed under the GPLv2+ license.

Some of Privoxy's advanced features include: the ability to bind tags to change filter behavior based on individual client and server HTTP headers; an HTTPS inspection mode that allows filtering HTTPS requests and responses; the use of regular expressions in configuration files and the ability to replace animated gifs with truncated static images. Privoxy can be used to block ads and unwanted content on devices where it is impossible to install the appropriate browser add-ons.

https://www.privoxy.org/announce.txt

Linux Kernel Reaches 40 Million Lines:

28/01/2025

The Linux kernel has reached that 40 million lines of source code, mark. Of the 40 million lines, 24 million are driver code (for example, the driver code for AMD GPUs takes up about 5 million lines), and 4.4 million are specific to various hardware architectures (approximately 500,000 lines are used to support the x86 architecture).

Since July 2024, the kernel size has increased by 5 million lines. The 30 million line mark was passed in the summer of 2022, 20 million lines in the fall of 2015, and 10 million lines in the fall of 2008. For comparison, the 0.0.1 kernel release included only 10,000 lines of code, and 1.0.0 included 176,000 lines.

https://translate.google.com/website?sl=auto&tl=en&hl=en-US&client=webapp&u=https://www.heise.de/news/Linux-durchbricht-40-Millionen-Zeilen-Marke-10255488.html

Pidgin 2.14.14 released:

29/01/2025

The instant messaging client, Pidgin has released version 2.14.14, supporting networks such as XMPP, Bonjour, Gadu-Gadu, IRC and Novell GroupWise. The Pidgin graphical interface is written using the GTK library and supports tabs, a single address book and the ability to work on different networks simultaneously. Plug-ins can be used to expand functionality and add support for new protocols, for example, there is a plugin for WhatsApp.

The new version provides support for building in GCC 14 and GCC 15, resolves the issue with pop-up warnings about certificates when using the NSS library and improves support for Fedora 40 and Debian 13. They also added support for labels displaying text in italics in messages received via IRC as well as implemented the ability to execute arbitrary commands during the build (CUSTOM_AUTHENTICODE=command in local.mak) to certify executable files with a digital signature.

https://discourse.imfreedom.org/t/pidgin-2-14-14-has-been-released/241

KaOS 2025.01 released:

29/01/2025

KaOS 2025.01 is out, a rolling release distribution aimed at providing a desktop based on the latest KDE releases and applications using Qt. Specific design features include the placement of a vertical panel on the right side of the screen. The distribution is being developed with an eye on Arch Linux, but maintains its own independent repository with over 1,500 packages and offers a number of its own graphical utilities. XFS is used as the default file system. Builds are published for

x86_64 systems (3.5 GB).

https://kaosx.us/news/2025/kaos01/

Ubuntu Switches to Matrix for Developer Communications:

29/01/2025

The Ubuntu project will start using Matrix as the official developer communication platform on March 1. The IRC channels that are currently in use have been deprecated. In a vote of developers working at Canonical, 10 participants voted for the transition to Matrix, 1 voted against, and 6 asked for a public discussion. The discussion about the advisability of migrating to Matrix was held on the ubuntu-devel mailing list, after which, the technical committee (Ubuntu Technical Board) made the decision to migrate.

Official communication, such as real-time requests to privileged Ubuntu development teams, will now only take place via Matrix. Canonical employees involved in Ubuntu development will be required to be present on this platform during their working hours. The IRC channel "#ubuntu-devel" will be replaced by the matrix room " #devel:ubuntu.com ", and "#ubuntu-release" will be replaced by " #release:ubuntu.com .

https://www.mail-archive.com/ubuntu-devel-announce@lists.ubuntu.com/msg01112.html

OPNsense 25.1 released:

29/01/2025

OPNsense 25.1 is here. In 2015, it separated from the pfSense project with the goal of developing a completely open distribution that could have functionality at the level of commercial solutions for deploying firewalls and network gateways. Unlike pfSense, the project is positioned as not controlled by a single company, but developed with the direct participation of the community and having a completely

transparent development process, as well as providing the ability to use any of its code in third-party products, including commercial ones. The source code of the distribution components, as well as the tools used for build, are distributed under the BSD license. The builds are prepared as a LiveCD and a system image for recording on Flash drives (497 MB).

The distribution is based on the FreeBSD code. Capabilities of OPNsense include: a completely open assembly toolkit, support for installation in the form of packages on top of regular FreeBSD, load balancing tools, a web interface for managing user connections to the internet (Captive portal), the presence of mechanisms for tracking connection states (stateful firewall based on pf), a system for limiting bandwidth, traffic filtering, creating VPN based on IPsec, OpenVPN and PPTP, integration with LDAP and RADIUS, support for DDNS (Dynamic DNS) and a system of visual reports and graphs.

The distribution can be used to create fault-tolerant configurations based on the CARP protocol and allowing a backup node to be launched in addition to the main firewall, which will be automatically synchronized at the configuration level and will take over the load in the event of a failure of the primary node. A web interface is offered for adminitering and configuring the firewall, built using the Bootstrap web framework and Phalcon MVC.

https://forum.opnsense.org/index.php?topic%3D45460.0

Release of GCompris 25.0:

30/01/2025

GCompris V25.0 is out, a free learning center for preschool and primary school children. The package provides 195 mini-lessons and modules, offering from the simplest graphics editor, puzzles and keyboard trainer to lessons in mathematics, geography and reading. GCompris uses the Qt library and is developed by the KDE community. Ready-made builds are available for Linux, macOS, Windows, Raspberry Pi and Android.

https://gcompris.net/news/2025-01-30-en.html

A new 'alpha' of 0 AD:

30/01/2025

After two and a half years of development, the twenty-seventh alpha release of the free game, 0 AD is presented, featuring a real-time strategy in the style Age of Empires. Like all previous releases, the new version is labeled "alpha", but the developers decided to abandon this tradition and the next update will be labeled "0 AD Release 28". The alpha version label was set, since not all of the originally intended features have been implemented. At the same time, the existing functionality is polished and stable, and in terms of quality of implementation, 0 AD has long since left the alpha version state.

The game's source code was opened by Wildfire Games in 2009 under the GPL license. Before that, the project had been developed as a proprietary product for 9 years. The game build is available for Linux (Ubuntu, Gentoo, Debian, openSUSE, Fedora and Arch Linux), FreeBSD , OpenBSD , macOS and Windows. The proposed version supports network play and single-player play with bots on pre-modeled or dynamically generated maps. The game covers more than ten civilizations that existed in the range from 500 BC to 500 AD.

Non-code components of the game, such as graphics and sound elements, are licensed under the Creative Commons BY-SA license, which allows modification and use in commercial products, provided that authorship is indicated and derivative works are distributed under a similar license. The 0 AD game engine has about 200 thousand lines of code in C+ +, OpenGL is used to output 3D graphics, OpenAL is used for sound, and ENet is used for network play.

https://play0ad.com/new-release-0-a-d-alpha-27-agni/

OpenVox, a fork of Puppet:

31/01/2025

The first release of the OpenVox project is presented. It develops a fork of the Puppet configuration management automation system, allowing one to automate the administration of a group of servers and organize centralized execution of tasks such as user management, package installation and configuration updates. The first release of OpenVox 8.11 is equivalent to a similar version of Puppet and can be used for its replacement, transparently. The project code is written in Ruby and is distributed under the Apache 2.0 license.

OpenVox is planned to be developed as a soft fork, synchronized with the Puppet code base and remaining fully compatible with Puppet releases. The team that created the fork is currently working with representatives from Perforce, the owner of the Puppet project, to create a joint steering committee that will determine the direction of OpenVox and Puppet.

It is noted that until the rebranding process and deployment of the testing system is completed, OpenVox is not recommended for production deployments in critical infrastructure. In terms of functionality, OpenVox supports the same commands, modules, extensions, and settings as Puppet.

The reason for the fork is said to be a change in policy by Perforce, which acquired the Puppet project in 2022. In the fall of 2024, Perforce stopped publicly distributing binary packages with Puppet, focused on developing an internal fork, and stopped developing the open source code base. The Puppet license remained the same, but the source code created by Perforce was no longer publicly available.

https://voxpupuli.org/blog/2025/01/21/openvox-release/

Release of GParted 1.7:

01/02/2025

The release of the Live distribution GParted Live 1.7.0 was published. It is designed to restore systems after failures and

work with disk partitions using the partition editor GParted. The boot image size is 588 MB (x86_64). The distribution is based on the Debian Sid package base as of January 31.

The distribution is developed by the developers of the disk partition editor GParted (GNOME Partition Editor) and is updated after the formation of the next release of the main project. GParted supports most file systems and partition types used in Linux. In addition to label management, editing and creating partitions, GParted allows you to reduce or increase the size of existing partitions without losing the data located on them, check the integrity of partition tables, recover data from lost partitions and align the beginning of a partition along the cylinder boundary.

GParted 1.7 adds experimental support for the Bcachefs file system. It also recognizes NBD (Network Block Device) block devices used to access a block device on another computer.

GParted Live 1.7 no longer supports 32-bit (i686/i686-pae) builds due to Debian Sid ceasing support for i386 kernel packages. New packages bcachefs-tools, bcache-tools, and util-linux-extra are now included. The Linux kernel has been updated to version 6.12.11. To use all the features of the GParted application, you need to have at least 640 MB of RAM.

https://gparted.org/news.php?item%3D257

Release of Scribus 1.7.0:

01/02/2025

The release of the free application for desktop publishing, Scribus 1.7.0, is presented. The package provides tools for professional layout of printed materials, includes tools for PDF generation and it supports work with separate color profiles, CMYK, spot colors and ICC. The program is written using the Qt toolkit and is supplied under the GPLv2+ license. Ready-made binary builds are prepared for Linux (AppImage), macOS and Windows.

Branch 1.7 is presented as experimental - after final stabilization and recognition of readiness for widespread implementation, a stable release of Scribus 1.8.0 will be formed based on branch 1.7.

https://www.scribus.net/scribus-1-7-0-released/

Regolith 3.2 Released:

01/02/2025

The release of the Regolith Desktop 3.2 desktop environment, developed by the developers of the Linux distribution of the same name, has been published . Regolith is based on GNOME session management technologies, the i3 window manager, the Picom and Sway composite servers, the i3bar panel, the rofication notification system, the i3status-rs status bar, and the ilia program launcher interface. The project's code is distributed under the GPLv3 license.

The project is positioned as a modern desktop environment, developed for the rapid execution of typical actions due to optimization of work processes and elimination of unnecessary clutter. The goal is to provide a functional, but minimalistic interface that can be customized and expanded depending on the user's preferences. Regolith may be of interest to beginners accustomed to traditional window systems, but may want to try frame (mosaic) window layout methods.

https://github.com/regolith-linux/regolith-desktop/releases

Week 6

Void Linux update:

03/02/2025

New bootable builds of Void Linux have been created. It is not based on other distributions and is developed using a continuous cycle of updating (rolling updates, without separate releases of the distribution). Previous builds were published in March 2024. Using ready-made builds only makes sense for new installations - in already installed systems, package updates are delivered as they are ready. The builds are available in variants based on the Glibc and Musl system libraries. Live images with the Xfce desktop and a basic console build have been prepared for the x86_64, i686, armv6l, armv7l and aarch64 platforms. The ARM builds support the BeagleBone/BeagleBone Black, Cubieboard 2, Odroid U2/U3 and Raspberry Pi boards, as well as Apple devices with ARM chips, Lenovo Thinkpad X13s and Pinebook Pro.

The system manager runit is used to initialize and manage services in the distribution, and its own package manager xbps and package assembly system xbps-src are being developed to manage packages . Xbps allows you to install, remove and update applications, identify incompatibilities of shared libraries and manage dependencies. Glibc or Musl are supported as standard C libraries.

https://voidlinux.org/news/2025/02/new-images.html

MiniOS 4.1 released:

03/02/2025

MiniOS 4.1 is released, based on Debian and running directly from a USB drive. The graphical environment is based on Xfce. The distribution uses a modular architecture that allows you to create specialized configurations, excluding and adding

components to adapt the system to specific tasks. The release is available in three editions:

Standard (i386, amd64, 675 MB) edition for everyday use and working with modules. The package includes Linux kernel 6.1.124 with AUFS support for hot plugging of modules.

Toolbox (amd64, 998 MB) is an edition for experienced users who need an extended set of tools for system diagnostics and recovery. In addition to the capabilities of the Standard edition, the package includes a set of programs for system administration, network diagnostics, traffic analysis, storage device diagnostics and data recovery. Supported file systems include: Ext2/3/4, Btrfs, XFS, ExFAT, NTFS, ZFS, LVM, F2FS, JFS, ReiserFS. Supported compression utilities are ZIP, 7z, XZ, Zstd, LZ4, Bzip2, Pigz, Plzip, Lrzip, Pbzip2, Lzop. Virtualization based on QEMU-KVM with the Virtual Machine Manager graphical interface. The package includes a package with the Linux kernel from Debian (6.1.124) with Secure Boot support.

Ultra (amd64, 1.5 GB) - extends the Toolbox experience with a suite of office and multimedia applications, such as LibreOffice, GIMP, VLC, OBS Studio, and Blender. The Docker containerization platform and graphical utilities for installing packages are also included.

https://github.com/minios-linux/minios-live/releases/tag/v4.1.0

Release of MyLibrary 3.1:

03/02/2025

The release of the home library cataloger MyLibrary 3.1 was announced. The program code is written in the C++ and is available under the GPLv3 license. The graphical user interface is implemented using the GTK4 library. The program is adapted to work in Linux and Windows operating systems. For Arch Linux users, a ready-made package is available in the AUR and for Windows users, an experimental installer is available.

MyLibrary catalogs book files in fb2, epub, pdf, djvu formats,

both directly accessible and packed into archives (zip, 7z, jar, cpio, iso, tar, tar.gz, tar.bz2, tar.xz, rar), and creates its own database without changing the original files or changing their location. The integrity of the collection and its changes is monitored by creating a database of hash sums of files and archives.

A search for books by various criteria (last name, first name, middle name of the author, book title, series, genre) and their reading through the program installed in the system by default for opening the corresponding file formats is implemented. When selecting a book, the book's annotation and cover are displayed, if available. Display of a list of files included in a collection and a list of books included in a specific file is supported. A bookmark mechanism has been created for quick access to books.

https://github.com/ProfessorNavigator/mylibrary/releases/tag/v3.1

First results of the project to improve FreeBSD performance on laptops:

05/02/2025

The FreeBSD Foundation, a non-profit organization, has published a report on the achievements of a project to improve FreeBSD performance on laptops, which was launched six months ago and received $750,000 in investment. The stated goal of the project is to bring FreeBSD to a form that meets the needs of modern laptop users. It is a long list, so check out the link below.

https://freebsdfoundation.org/blog/laptop-support-and-usability-project-update-first-monthly-report-community-initiatives/

MaXX Interactive Desktop 2.2 Released:

05/02/2025

The MaXX Interactive Desktop 2.2.0 DE is presented, that

attempts to recreate the user shell of IRIX Interactive Desktop (SGI Indigo Magic Desktop) using Linux technologies. Development is carried out under an agreement with SGI, allowing a complete recreation of all the functions of IRIX Interactive Desktop for the Linux platform. Installation instructions are prepared for Ubuntu, RHEL, Debian, Manjaro and Arch Linux.

The source code is only partially published. Some components contain a mixture of proprietary code (as required by the SGI agreement) and code under various open licenses. Such components are developed in private repositories and are available upon special request. At the same time, work is underway to open all the source code, rewrite the remaining proprietary code, and transfer the project to a community-controlled development model. All new code and rewritten old code are published under the BSD license.

IRIX Interactive Desktop was delivered on SGI graphics workstations equipped with the IRIX operating system. The peak of popularity of these systems occurred in the late 1990s, and production continued until 2006. The Linux shell edition is implemented on top of the 5dwm window manager (based on OpenMotif) and SGI-Motif libraries. The project uses a modular architecture with the use of microservices for separate execution of desktop components. The composition includes systems for centralized monitoring (MaXXmonitor) and configuration management.

Rendering and visual effects are implemented using OpenGL. To speed up work and reduce the load on the CPU, multi-threaded processing of operations and the transfer of computing tasks to the GPU are used. The desktop does not depend on the screen resolution and uses vector icons. Desktop extension to several monitors, HiDPI, UTF-8 and FreeType fonts are supported. ROX-Filer is used as a file manager (optional pcmanfm, as well as a proprietary file manager, not yet complete).

https://docs.maxxinteractive.com/books/whats-new-release-notes/page/january-31th-2025-maxxdesktop-octane-220-release

OpenWrt 24.10 is available:

06/02/2025

After more than a year of development, a major release of the OpenWrt 24.10.0 distribution was announced, developed for network devices such as routers, switches, and access points. OpenWrt supports 1970 devices and offers a build system that simplifies cross-compilation and the creation of custom builds. Such builds allow you to create ready-made firmware with the desired set of pre-installed packages, optimized for specific tasks. Ready-made builds are published for 39 target platforms (the previous branch supported 36 platforms).

https://lists.openwrt.org/pipermail/openwrt-announce/2025-February/000067.html

Release of LibreOffice 25.2:

06/02/2025

The Document Foundation has released LibreOffice 25.2. Ready-to-use installation packages have been prepared for various Linux, Windows, and macOS distributions. 176 developers took part in this release. 47% of the changes were made by 50 employees of the companies supervising the project, such as Collabora and Allotropia, 31% by seven employees of The Document Foundation, and 22% by 119 independent enthusiasts.

The release of LibreOffice 25.2 is labeled "Community" and will be supported by enthusiasts and is not aimed at enterprise use. LibreOffice Community is available to everyone without exception, including corporate users, for free without restrictions. For enterprises that need additional service, products of the LibreOffice Enterprise family are being developed separately, for which partner companies will provide full support, the ability to receive long-term updates (LTS) and additional functions, such as SLA (Service Level Agreements).

https://blog.documentfoundation.org/blog/2025/02/06/

libreoffice-25-2/

Release of PicoLibc Standard C Library 1.8.9:

08/02/2025

The standard C library PicoLibc 1.8.9 has been published. It is developed by Keith Packard (leader of the X.Org project) for use on embedded devices with limited storage and RAM. During development, part of the code was borrowed from the newlib library from the Cygwin project and AVR Libc, developed for Atmel AVR microcontrollers. The PicoLibc code is distributed under the BSD license. Library assembly is supported for the following architectures: ARM (32-bit), Aarch64, i386, RISC-V, x86_64, m68k, PowerPC, LatticMico32, LoongArch and OpenRisc.

Initially, the project was developed under the name "newlib-nano" and was aimed at reworking some resource-intensive Newlib functions that were problematic to use on embedded devices with minimal RAM. For example, in PicoLibc, stdio functions were replaced with a compact version from the avrlibc library. The code was also cleaned from components not supplied under the BSD license that were not used in the build for embedded devices. A simplified version of the initialization code (crt0) was added, and the implementation of calls was transferred from ' struct _reent ' to the TLS (thread-local storage) mechanism. The Meson toolkit was used for the build.

https://github.com/picolibc/picolibc/releases/tag/1.8.9

ONLYOFFICE 8.3 is available:

07/02/2025

ONLYOFFICE DocumentServer 8.3 has been released, implementing a server for ONLYOFFICE online editors and collaborative work. Editors can be used to work with text documents, tables, and presentations. The project code is distributed under the free AGPLv3 license.

At the same time, they released the ONLYOFFICE DesktopEditors 8.3, built on a single code base with online editors. Desktop editors are designed as desktop applications that are written in JavaScript using web technologies, but combine in one application, the client and server components designed for use on the user's local system, without access to an external service. For collaboration on your own hardware, you can also use the Nextcloud Hub platform, which provides full integration with ONLYOFFICE. Ready-made builds are formed for Linux, Windows and macOS.

ONLYOFFICE claims full compatibility with MS Office and OpenDocument formats. Supported formats include: DOC, DOCX, ODT, RTF, TXT, PDF, HTML, EPUB, XPS, DjVu, XLS, XLSX, ODS, CSV, PPT, PPTX, ODP. You can expand the functionality of editors through plugins, for example, plugins are available for creating templates and adding videos from YouTube. Ready-made builds are created for Windows and Linux (deb and rpm packages).

https://www.onlyoffice.com/blog/2025/02/onlyoffice-docs-8-3-released

Min 1.34:

08/02/2025

A new version of the Min 1.34 browser has been released, offering a minimalist interface focused on address bar manipulation. The browser is built using Electron, which allows you to create stand-alone applications based on the Chromium engine and Node.js platform. The Min interface is written in JavaScript, CSS, and HTML. The code is distributed under the Apache 2.0 license. Builds are available for Linux, macOS, and Windows.

Min supports navigation through open pages via a tab system. Such functions as opening a new tab next to the current tab, hiding unused tabs (which the user has not accessed for a certain time), grouping tabs and viewing all tabs as a list are available. There are tools for building lists of deferred tasks/

links for reading in the future, as well as a bookmark system with full-text search support. The browser has a built-in ad blocking system (EasyList) and code for tracking visitors. It is possible to disable the loading of images and scripts.

The central control element in Min is the address bar, through which you can send queries to the search engine (by default, DuckDuckGo) and perform searches on the current page. As you type in the address bar, a summary of information relevant to the current query is generated as you type, such as a link to an article in Wikipedia, a selection from bookmarks and browsing history, as well as recommendations from the DuckDuckGo search engine. Each page opened in the browser is indexed and becomes available for subsequent search in the address bar. In the address bar, you can also enter commands for quick operations (for example, "!settings" - go to settings, "!screenshot" - create a screenshot, "!clearhistory" - clear browsing history, etc.).

https://github.com/minbrowser/min/releases/tag/v1.34.0

TuxTape project:

08/02/2025

Insurance company GEICO has published a preliminary release of TuxTape, a toolkit that allows you to deploy your own infrastructure for creating, building, and delivering live patches for the Linux kernel. Live patches allow you to apply fixes to the Linux kernel on the fly, without rebooting or stopping the system. The project code is written in Rust and is distributed under the Apache 2.0 license.

Live patches with vulnerability fixes are provided for their distributions by such companies as Red Hat, Oracle, Canonical and SUSE, but only low-level tools for working with patches are open, and the patches themselves are created behind closed doors. Gentoo and Debian distributions tried to develop open projects elivepatch and linux-livepatching, but the first has been abandoned for 6 years, and the second has stalled at the stage of creating a test prototype.

TuxTape aims to provide a native system for creating and delivering live patches that is vendor-agnostic and adaptable to any Linux kernel, not just distribution-specific kernel packages. TuxTape can generate live patches that are compatible with Red Hat's kpatch toolkit (other similar tools include SUSE's kGraft , Oracle's Ksplice , and the generic livepatch). Patches are built as loadable kernel modules that replace functions in the kernel, using the ftrace subsystem to redirect to new functions included in the module.

TuxTape can track Linux kernel vulnerability fixes posted to the linux-cve-announce mailing list and the Git repository, rank the vulnerabilities by severity, determine applicability to supported Linux kernels, and generate live patches based on regular patches to LTS kernel branches. The applicability of source patches is assessed by profiling kernel builds. Patches with vulnerabilities that do not affect the target kernel are ignored.

TuxTape includes a system for tracking new kernel vulnerabilities, a patch and vulnerability database builder, a server for storing metadata, a kernel build dispatch system, a kernel builder, a patch generator, a patch archive, a client for receiving patches for end hosts, and an interactive interface for managing the generation of live patches.

https://github.com/geico/tuxtape/releases/tag/v0.1

Release of SysVinit 3.14:

08/02/2025

The classic SysVinit 3.14 initialization system has been published. It was widely used in Linux distributions in the days before systemd and upstart, and now continues to be used in distributions such as Devuan, Slackware, Debian GNU/Hurd and antiX. The code is written in C and is distributed under the GPLv2 license. The versions of the insserv and startpar utilities used in conjunction with sysvinit have not changed. The insserv utility is designed to manage the boot process taking into account the dependencies between init scripts, and startpar

is used to ensure parallel launch of several scripts during the system boot process.

The new version of SysVinit restores support for the DESTDIR variable in src/Makefile, which is necessary for building on Arch Linux. The maximum line size in the /etc/inittab configuration file has been increased from 127 to 253 characters.

The logic for handling /etc/inittab entries that exceed the line size limit, has been changed. For those lines, a message is now written to the log, and the line itself is ignored. Previously, long lines were truncated at the size limit and executed, which could lead to unpleasant crashes. For example, if a long line had the command "rm -rf /var/1234" at the end, then the command "rm -rf /var" could actually be executed if the "/1234" part was outside the truncation limit.

https://lists.nongnu.org/archive/html/sysvinit-devel/2025-02/msg00000.html

Pale Moon 33.6.0 Released:

09/02/2025

The release of the Pale Moon 33.6.0 web browser has been published. It has been forked from the Firefox code base to provide higher performance, preserve the classic interface, minimize memory consumption, and provide additional customization options. Pale Moon builds are generated for Windows and Linux (x86_64). The project code is distributed under the MPLv2 (Mozilla Public License).

The project adheres to the classic interface layout, without switching to the Australis and Photon interfaces integrated into Firefox 29 and 57, and with the provision of wide customization options. The removed components include DRM, Social API, WebRTC, PDF viewer, Crash Reporter, code for collecting statistics, parental control tools, and accessibility options. Compared to Firefox, the browser has returned support for extensions using XUL, and retains the ability to use both

full-fledged and lightweight design themes.

https://forum.palemoon.org/viewtopic.php?t%3D32070%26p%3D259424%23p259424

Week 7

EndeavourOS 25.02 released:

11/02/2025

EndeavourOS 25.02 "Mercury" was released, continuing the development of the Antergos project and aimed at providing the ability to install Arch Linux with a selected desktop without unnecessary complications. The size of the installation image is 2.7 GB (x86_64).

The distribution offers a simple installer for installing the basic Arch Linux environment, based on the Calamares installer. KDE (by default), Mate, LXQt, Cinnamon, Xfce, GNOME, Budgie, as well as the i3, BSPWM, and Sway mosaic window managers are offered for installation. Work is underway to add support for the Qtile and Openbox window managers, UKUI , LXDE, and Deepin desktops. One of the project's developers is developing its own window manager, called Worm.

https://endeavouros.com/

Plasma

After four months of development, the KDE Plasma 6.3 desktop environment has been released. To evaluate the new KDE releases, you can use builds from the KDE Neon and openSUSE projects (Argon, based on openSUSE Leap, and Krypton, based on openSUSE Tumbleweed).

Main changes include: The KWin compositing manager has reworked its support for fractional scaling. Snapping to the screen's pixel grid is now provided to reduce blurriness and improve clarity when zooming in. The zoom effect has been upgraded so that when zoomed in significantly, it now shows a grid to help you visually separate individual pixels and many more.

https://kde.org/announcements/plasma/6/6.3.0/

Free audio codec FLAC 1.5 released:

11/02/2025

The Xiph.Org community has published an update to the free audio codec FLAC 1.5.0, which allows you to compress audio without losing quality. FLAC uses only lossless encoding methods, which guarantees complete preservation of the original quality of the audio stream and its identity with the reference version subjected to encoding. At the same time, the lossless compression methods used allow you to reduce the size of the original audio stream by 50-60%. FLAC is a completely free streaming format, which implies not only the openness of libraries with the implementation of encoding and decoding functions, but also the absence of restrictions on the use of specifications and the creation of derivative versions. The library code is distributed under the BSD license.

https://xiph.org/flac/2025/02/11/flac-1-5-0-released.html

Systemd wants to download system images via HTTP:

12/02/2025

Lennart Poettering proposed a change in the system manager, systemd, that allows booting the system using a root filesystem image obtained from an external host via HTTP. The change boils down to extending systemd with the ability not only to download a disk image via HTTP at the initial boot stage, but also to unpack the downloaded image, bind it to a block device in loopback mode, mount the block device as /sysroot and boot the system from it.

Support for downloading disk images during system boot using systemd-import-generator is already included in systemd 257. The rest of the functionality is still at the stage of a working prototype, requiring further development. The implementation does not yet support the full boot cycle, but in the future, the functionality is planned to be extended to booting via UEFI

HTTP Boot of universal kernel images UKI (Unified Kernel Image), which combine in one file a bootloader for UEFI (UEFI boot stub), a Linux kernel image, and an initrd system environment loaded into memory.

All this is aimed at modern immutable operating systems on real hardware. The developer can create an image with the system environment on his computer using the mkosi utility and make it available via HTTP using the "mkosi -f serve" command. On the computer on which the system operation needs to be tested, it is enough to enable booting via HTTP in EFI and add the URL of the image to be booted using the command:

After that, you can simply reboot the computer, and it will load a standard UKI kernel image, which will then load a disk image prepared by the developer from the root FS. Until HTTP boot is disabled in EFI, each subsequent reboot of the computer will result in loading a fresh system image. Local disks are not affected in any way during such testing.

https://github.com/systemd/systemd/pull/36314

DuckDB 1.2.0 Released:

13/02/2025

DuckDB 1.2.0 , a DBMS focused on performing analytical queries and conceptually resembling SQLite, has been released. DuckDB combines SQLite's compactness, embedded library connection, single-file database storage, and CLI interface with capabilities and optimizations for performing analytical queries that cover a significant portion of stored data, such as aggregating the entire contents of tables or merging several large tables. The project's code is written in C++ and is distributed under the MIT license.

DuckDB extends SQL language with it's own commands, which includes additional capabilities for processing very complex and long-running queries. You can use complex types (arrays, structures, unions), as well as execute arbitrary and nested correlated subqueries. Simultaneous execution of several queries is supported, as well as execution of queries directly from files in CSV and Parquet formats. Support for import from PostgreSQL DBMS is available.

https://duckdb.org/2025/02/05/announcing-duckdb-120

openSUSE Tumbleweed switches to SELinux:

13/02/2025

The openSUSE project developers have announced that the openSUSE Tumbleweed distribution, which uses a rolling update cycle, has been migrated to the SELinux access control system. Starting with the 20250211 update, new openSUSE Tumbleweed installations will be offered SELinux in "enforcing" mode by default. Ready-to-use builds of openSUSE Tumbleweed minimalVM virtual machines will be shipped with SELinux by default.

AppArmor support will be retained in full - existing configurations will continue to use AppArmor, and the installer will have an option to activate AppArmor in new installations. For users whose systems use AppArmor but want to switch to SELinux, migration instructions are provided . The openSUSE Leap 15.x distribution will continue to use AppArmor.

https://news.opensuse.org/2025/02/13/tw-plans-to-adopt-selinux-as-default/

Increasing the Linux kernel timer frequency to 1000Hz:

13/02/2025

An engineer at Google has proposed increasing the Linux kernel's default timer interrupt rate to 1000 Hz, which would increase task switching frequency and reduce the task

scheduler's time quantum. The current default is 250 Hz, as a compromise between performance, latency, and power consumption.

With 120Hz displays, typical for modern PCs and mobile devices, the 250Hz clock rate introduces approximately half the frame time inaccuracy, reducing resource allocation efficiency and underperforming the optimal performance-to-power ratio. Power consumption may be higher for systems with low clock rates because the Dynamic Voltage and Frequency Scaling (DVFS) mechanism uses a more aggressive frequency selection strategy to avoid slowing down tasks.

Another Google engineer suggested leaving the timer frequency as is (250 Hz), as increasing the timer interrupt frequency can lead to increased power consumption on low-power devices such as IoT boards. He estimated that setting the frequency to 1000 Hz, even on Android devices, has seen a 7% increase in CPU power consumption in some situations. Increasing the timer frequency also results in more frequent CPU wake-ups, as at 250 Hz, timers set to t + 1 ms, t + 2 ms, t + 3 ms, and t + 4 ms will be grouped together and result in a single wake-up, while at 1000 Hz, there will be four separate wake-ups.

The Phoronix resource compared the performance of a PC based on the AMD Ryzen 9 9950X CPU. The 1000 Hz configuration turned out to be faster in the Llama.cpp, nginx, SuperTuxKart, Selenium tests and when measuring the kernel build time. In the Darktable, PostgreSQL, Unvanquished, Xonotic, Blender, SVT-AV1, RawTherapee tests, the performance was higher with the 250 Hz setting. At 1000 Hz, the average power consumption was 144.2 W, the minimum was 0.18 W, and the maximum was 202.13 W, and at 250 Hz: average 144.37 W, minimum 0.07 W, maximum 202 W.

https://lore.kernel.org/lkml/20250210001915.123424-1-qyousef@layalina.io/

Chimera 20250214 released:

14/02/2025

An update of the Chimera Linux distribution is out. It is notable for using the Linux kernel in combination with FreeBSD utilities, the dinit system manager, and the Musl standard C library. Bootable Live images are generated for the x86_64, ppc64le, aarch64, riscv64, and ppc64 architectures in variants with GNOME (1.5 GB), KDE (2.1 GB), and a stripped-down environment (806 MB).

The project aims to create a Linux distribution with alternative tools and is being developed taking into account the experience of developing Void Linux (the author of Chimera is a former Void maintainer, responsible for the POWER and PowerPC architectures). Like Void Linux, the project is being developed using a rolling release cycle of software version updates. The FreeBSD user components were chosen as less complicated and more suitable for lightweight and compact systems than the standard GNU tools.

In addition to FreeBSD utilities, which replace such packages as coreutils, findutils, diffutils, sed and grep, the distribution uses GNU Make, util-linux, syslog-ng, udev, pam, dinit, clang, lld, libc++ and musl. Memory allocation functions in musl have been replaced by mimalloc . ZFS is used as a file system. The / var partition does not save its state between reboots (stateless). PipeWire is used to manage multimedia streams. Wayland is used by default in graphical environments.

For installation of additional programs, both binary packages and a proprietary build system from source code - cports , written in Python, are offered. Currently, more than 4000 ports are supported. The build environment is launched in a separate unprivileged container created using the bubblewrap toolkit. The APK package manager (Alpine Package Keeper, apk-tools) is used to manage binary packages.

https://chimera-linux.org/news/2025/02/new-images.html

Serpent OS distribution renamed to AerynOS:

15/02/2025

The developers of the Serpent OS distribution announced that they were renaming the project to AerynOS and rebranding. They plan to complete the migration of the infrastructure to the new name on March 17. It is noted that when the project was founded, the name Serpent OS was chosen hastily, without taking into account that the word "serpent" is perceived by some people in a negative connotation (a tempting snake, a vengeful person). The developers receive many complaints about the unfortunate choice of name, so they decided to take advantage of the moment, while the project has not left the alpha testing stage, and change the name.

https://serpentos.com/blog/2025/02/14/evolve-this-os/

KDE 6.4 development begins:

15/02/2025

Nate Graham, a quality assurance developer at the KDE project, has published another KDE development report. The release of KDE Plasma 6.3.0 has revealed several nasty bugs that are scheduled to be fixed in the 6.3.1 patch, scheduled for February 18. An issue has been identified in the X11-based session that causes the KWin compositing manager to crash when connecting a new screen or switching between screens connected via HDMI. KDE users are advised to try switching to a Wayland-based session, as KDE has largely stopped testing the X11-based session.

Also included in the 6.3.1 update are fixes for KWin crashes that could occur when connecting Thunderbolt devices and Alt +Tab process switching during software rendering. Additionally, a regression that could cause crashes when running some Qt applications in the Breeze environment has been fixed. In the Plasma desktop, an issue where clicking the network status icon in the system tray would crash when building with GCC 15 (due in May) has been resolved . Additionally, when building with GCC 15 with LTO optimizations, a KWin issue was discovered that would cause a black screen after changing the ICC profile in the display settings.

https://blogs.kde.org/2025/02/15/this-week-in-plasma-post-release-polishing/

Release of Luanti 5.11.0:

15/02/2025

After three months of development, Luanti 5.11.0 has been released. It is a free cross-platform sandbox game engine that allows you to create games with voxel mechanics using various voxel blocks for players to jointly form various structures and buildings that make virtual world. The gameplay provided by the engine is entirely dependent on a set of mods created in the Lua language. The engine is written in C++ using the IrrlichtMt 3D library (a fork of Irrlicht). Luanti code is distributed under the LGPL license, and game resources are licensed under the CC BY-SA 3.0 license. Ready-made builds are generated for various Linux distributions, Android, FreeBSD, Windows and macOS.

https://blog.luanti.org/2025/02/14/5.11.0-released/

Update to CADBase, a platform for exchanging 3D models and drawings:

16/02/2025

The CADBase platform, designed for storing data related to engineering and computer design, continues to develop. The main task of the platform is to exchange 3D models, drawings and related information, such as accompanying documentation, catalogs with information about suppliers, certificates, standardization and classification documents. The code is written in Rust and is distributed under the MIT license.

https://gitlab.com/cadbase/cdbs-app

Freezing disk format changes in Bcachefs:

17/02/2025

Kent Overstreet, the developer of the Bcachefs filesystem, has submitted a pull request with fixes to Bcachefs proposed for inclusion in the 6.14-rc3 branch. In addition to the information about the fixes, the message announces the stabilization of the Bcachefs disk structure format. Any further changes to the format will be categorized as optional and will be implemented as optional addons.

The fixes include: improved read-only mode performance; fix for use after free; fix for reflink pointers in fsck; fix for transaction restart handling.

https://lore.kernel.org/lkml/hodakekojuga62jmvqimb63dyyavx6jqdy7t67cltmha55fl5n@jl2guh3xzh4s/

SUSE and openSUSE consider dropping boot support on BIOS systems:

15/02/2025

Luboš Kocman, who is responsible for openSUSE release preparation, reported that SUSE is considering dropping support for BIOS booting, which would make SUSE and openSUSE distributions unusable on systems without UEFI support. The desire to drop BIOS support is explained by the fact that starting with the SLES 16 and openSUSE Leap 16 releases, packages will be built for the x86-64-v2 architecture, which covers the SSE3, SSE4_2, SSSE3, POPCNT, LAHF-SAHF, and CMPXCHG16B extensions.

Developers doubt that there is hardware in use that uses the x86-64-v2 architecture but does not support UEFI. As for virtualization systems, which often use BIOS-based mode to boot virtual machines, it is reported that this will not be a problem, since KVM, Xen, VirtualBox and other virtualization systems can emulate UEFI. Hardware based on Intel platforms has been shipped with UEFI since 2005. In 2020, Intel stopped supporting BIOS in client systems and datacenter platforms.

The Fedora distribution intended to remove BIOS support in 2020 and 2022 , but the project's technical committee rejected

these initiatives.

https://lists.opensuse.org/archives/list/factory@lists.opensuse.org/thread/H4JPQKOEKV6ECTNRE764NJFYSLLAWQLL/

Week 8

Release of fheroes2 1.1.6:

17/02/2025

The very actively developed fheroes2 1.1.6 project is now available, which recreates the Heroes of Might and Magic II game engine from scratch. The project code is written in C++ and is distributed under the GPLv2 license. To run the game, you need files with game resources, which can be obtained from the original Heroes of Might and Magic II. The project includes a script for automatically downloading and extracting resources from the demo version of the game, which will get you going on the fly.

https://github.com/ihhub/fheroes2/releases/tag/1.1.6

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https://lists.opensuse.org/archives/list/factory@lists.opensuse.org/thread/H4JPQKOEKV6ECTNRE764NJFYSLLAWQLL/

Postfix 3.10.0 has been released:

18/02/2025

After almost a year of development, the release of a new stable branch of the Postfix mail server - 3.10.0, has been published. At the same time, the end of support for the Postfix 3.6 branch, released in early 2021, was announced. The project code is written in C and is distributed under the EPL 2.0 (Eclipse Public License) and IPL 1.0 (IBM Public License) licenses.

Postfix is one of the few projects that combines high security, reliability, and performance, thanks to a multi-process architecture that isolates individual handlers, as well as a strict policy of code formatting and patch auditing. To protect against errors when working with memory, the project uses protected versions of the function for allocating and freeing memory, as well as a set of abstract functions-bindings for working with buffers (checking for buffer overruns and accessing freed memory), file operations , output formatting, buffered I/O, and string manipulation (including the ability to work with arbitrary-sized strings and automatically resize strings).

According to the February automated survey of about 550 thousand mail servers, Postfix is used by 37.64% (36.81% a year ago) of mail servers, Exim's share is 56.03% (56.61% a year ago), Sendmail - 3.39% (3.60%), MailEnable - 1.80% (1.82%), MDaemon - 0.39% (0.40%), Microsoft Exchange - 0.19% (0.19%), OpenSMTPD - 0.10% (0.09%).

https://www.mail-archive.com/postfix-announce@postfix.org/

msg00101.html

OpenSSH 9.9p2 Update to Fix MITM Attack:

18/02/2025

OpenSSH 9.9p2 is now available, fixing two vulnerabilities discovered by Qualys. An example of how these vulnerabilities can be used to perform a MITM attack: it allows a client to redirect traffic to a fake server when attempting to connect to an SSH server, bypass host key verification, and make the client appear to be connected to the desired server (the SSH client will accept the fake server's host key instead of the legitimate server's key).

The first vulnerability (CVE-2025-26465) is caused by a logical error in the ssh utility, which allows bypassing the server identity check and performing a MITM attack. The problem appears starting with the release of OpenSSH 6.8p1 (December 2014) in configurations with the VerifyHostKeyDNS setting enabled. In the basic OpenSSH distribution, this option is disabled by default, but until March 2023, it was enabled in the ssh settings in FreeBSD.

The problem is that in the verify_host_key_callback() function code, only the error code "-1" is checked when calling the verify_host_key() function, while other codes such as "-2" are ignored. As a result, the verify_host_key_callback() function can return a success code of "0" despite the error code "-2" being returned by the verify_host_key() function. The error code "-2" is returned by the verify_host_key() function when there is insufficient memory. If you create conditions that lead to the inability to allocate memory in the verify_host_key() function, SSH will think that the host key was verified successfully. To create such conditions, the attacker's fake SSH server, to which the client is redirected, returns a host key of the maximum possible size (256KB), and at the same time a memory leak is exploited on the ssh client side.

The conditions for creating a memory leak are achieved through a second vulnerability (CVE-2025-26466) affecting

both the ssh client and the sshd server, and is exploited without authentication. The vulnerability allows exhausting the available memory for a process and creating a high CPU load by sending a large number of SSH2_MSG_PING packets. There is a memory leak in the SSH2_MSG_PING packet handler, which has been apparent since the OpenSSH 9.5p1 release (August 2023). The leak occurs because for each incoming 16-byte PING packet, a 256-byte buffer is allocated to form a response, but this buffer is only freed after the key agreement is completed. As a workaround, it is proposed to configure limits using the LoginGraceTime, MaxStartups, and PerSourcePenalties directives.

https://lists.mindrot.org/pipermail/openssh-unix-dev/2025-February/041810.html

Mesa 25.0 is released:

19/02/2025

After three months of development, the release of the free implementation of the OpenGL and Vulkan APIs, Mesa 25.0.0, has been published. The first release of the Mesa 25.0.0 branch has an experimental status - after the final stabilization of the code, the stable version 25.0.1 will be released.

Mesa 25.0 adds support for the Vulkan 1.4 graphics API in the ANV drivers for Intel GPUs, RADV drivers for AMD GPUs, NVK drivers for NVIDIA GPUs, Asahi drivers for Apple GPUs, Turnip drivers for Qualcomm GPUs, and the lavapipe software rasterizer (lvp). Emulator mode (vn) supports Vulkan 1.3, the PanVK driver for ARM Mali GPUs supports Vulkan 1.1, and the v3dv (Broadcom VideoCore GPU for Raspberry Pi 4+) and dzn drivers (a Vulkan implementation on top of Direct3D 12) support Vulkan 1.0.

Mesa also provides full OpenGL 4.6 support for the iris (Intel Gen 8+ GPUs), radeonsi (AMD), Crocus (older Intel Gen4-Gen7 GPUs), zink, llvmpipe, virgl (Virgil3D virtual GPU for QEMU/KVM), freedreno (Qualcomm Adreno), d3d12 (OpenGL layer on top of DirectX 12), and asahi (AGX GPUs used in

Apple's M1 and M2 chips). OpenGL 4.5 support is available for AMD (r600) and NVIDIA (nvc0) GPUs. OpenGL 3.3 support is available in the softpipe (software rasterizer) and nv50 (NVIDIA NV50) drivers.

https://lists.freedesktop.org/archives/mesa-dev/2025-February/226464.html

OBS Studio and Fedora Resolve Conflict:

20/02/2025

As a result of a meeting between an OBS Studio representative and the Fedora leader and those responsible for maintaining Flatpak packages in the distribution, it was possible to establish cooperation and find solutions to problems that suit both projects. The demand to stop using the OBS Studio name in the Fedora-supported flatpak package has been withdrawn. Fedora will continue to offer users its own flatpak package with OBS Studio by default.

The issue with shipping the crashing version of Qt will be resolved by migrating Fedora's Flatpak package to the new Flatpak runtime, which uses Qt 6.8.2, which fixes the regression. The issue with informing users about the scope of responsibility and how to report bugs in the package has also been resolved. Additionally, four more issues in Fedora's Flatpak package have been identified and Fedora has begun working on fixing them:

https://gitlab.com/fedora/sigs/flatpak/fedora-flatpaks/-/issues/39%23note_2354562186

Xenoeye Netflow/IPFIX/sFlow Collector Release 25.02:

20.02.2025 13:26

Release of Netflow/IPFIX/sFlow collector Xenoeye 25.02 has been published. The collector allows collecting statistics on traffic flows from various network devices, transmitted using the Netflow v5, v9, IPFIX and sFlow protocols, processing data,

generating reports and building graphs. The core of the project is written in C, the code is distributed under the ISC license.

The collector aggregates network traffic by selected fields and exports data to PostgreSQL. This data can be used to build reports, graphs (using gnuplot, Python scripts + Matplotlib) or dashboards in Grafana. In addition, the collector can run custom scripts when thresholds are exceeded or when traffic falls below thresholds.

Moving averages are used to calculate the current traffic speed. The mechanism that tracks threshold exceeding is designed to notify you about DoS/DDoS attacks and start suppression using BGP announcements (Flowspec or Blackhole). The collector comes with an example of a Telegram robot script that can notify the messenger about anomalies. The collector is not demanding on resources, it can process traffic of small networks on Raspberry/Orange Pi or in a virtual machine with 2-4 GB of RAM.

https://github.com/vmxdev/xenoeye/releases/tag/v25.02-Novokuznetsk

Ubuntu 24.04.2 LTS Released with Graphics Stack and Linux Kernel Updates:

20/02/2025

An update for the Ubuntu 24.04.2 LTS distribution has been released, which includes changes related to improved hardware support, an update to the Linux kernel and graphics stack, and bug fixes in the installer and bootloader. The release also includes current updates for several hundred packages related to the elimination of vulnerabilities and problems affecting stability. At the same time, similar updates were released for Kubuntu 24.04.2 LTS, Ubuntu Budgie 24.04.2 LTS, Ubuntu MATE 24.04.2 LTS, Lubuntu 24.04.2 LTS, Ubuntu Kylin 24.04.2 LTS, Ubuntu Studio 24.04.2 LTS, Xubuntu 24.04.2 LTS, Edubuntu 24.04.2 LTS, Ubuntu Cinnamon 24.04.2 LTS, and Ubuntu Unity 24.04.2 LTS.

https://lists.ubuntu.com/archives/ubuntu-announce/2025-February/000308.html

Release of MyLibrary 3.2:

20/02/2025

MyLibrary 3.2 home library cataloger is out. The program code is written in the C++ and is available under the GPLv3 license. The graphical user interface is implemented using the GTK4 library. The program is adapted to work in Linux and Windows operating systems. For Arch Linux users, a ready-made package build script is available in the AUR. For Windows users, an experimental installer is available.

MyLibrary catalogs book files in fb2, epub, pdf, djvu formats, both directly accessible and packed into archives (zip, 7z, jar, cpio, iso, tar, tar.gz, tar.bz2, tar.xz, rar), and creates its own database without changing the original files or changing their location. The integrity of the collection and its changes is monitored by creating a database of hash sums of files and archives.

A search for books by various criteria (last name, first name, middle name of the author, book title, series, genre) and their reading through the program installed in the system by default for opening the corresponding file formats is implemented. When selecting a book, the book's annotation and cover are displayed, if available. Display of a list of files included in a collection and a list of books included in a specific file is supported.

Various operations with the collection are possible: updating (the entire collection is checked and the hash sums of available files are verified), exporting and importing the collection database, adding books/cds/toys/collectables (referred to as "books" from now on) to the collection and deleting "books" from the collection, adding folders with "books" to the collection, adding archives with "books" to the collection, copying "books" from the collection to an arbitrary folder, moving "books" from collection to collection. Manual editing of

records about "books" in the database is available. A bookmark mechanism has been created for quick access to "books".

https://github.com/ProfessorNavigator/mylibrary/releases/tag/v3.2

Gentoo Releases Official QCOW2 Boot Images:

20/02/2025

The developers of the Gentoo project announced official boot images, in the QCOW2 format, allowing you to get a fully working system environment, ready to run in virtual machines. The images are updated once a week, which allows you to use them to assess the current state of the distribution. Previously, the project distributed only installation images and a Live build for booting from USB devices.

Two variants are offered: an image without network services with an empty root password and an image with network services, blocked accounts and support for configuration via "cloud-init". The first variant is intended for quick familiarization and testing of the distribution on a local system, and the second variant is for deployment in cloud environments. XFS is used as a file system.

Images are generated for the amd64 (x86-64) and arm64 (aarch64) architectures, and support booting on systems with EFI (BIOS is not supported). There are plans to publish images for the riscv64 and loongarch64 architectures. Based on the available images, you can create bootable media using the "qemu-img convert" command to convert the qcow2 format to a disk image.

https://www-gentoo-org.translate.goog/news/2025/02/20/gentoo-qcow2-images.html?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en-US&_x_tr_pto=wapp

KiCad 9.0 CAD Release:

21/02/2025

After a year of development, the KiCad 9.0.0 release of the free PCB design software has been published. This is the third major release after the project came under the wing of the Linux Foundation. The builds are prepared for various Linux distributions, Windows and macOS. The code is written in C++ using the wxWidgets library and is distributed under the GPLv3 license.

KiCad provides tools for editing electrical circuits and printed circuit boards, 3D visualization of the board, working with a library of electrical circuit elements, manipulating Gerber templates (I don't know why, but my brain jumps to purity baby food when I see this), simulating the operation of electronic circuits, editing printed circuit boards and project management. The project also provides libraries of electronic components, footprints and 3D models. According to some printed circuit board manufacturers, about 15% of orders are received with the provision of schemes prepared in KiCad.

https://www.kicad.org/blog/2025/02/Version-9.0.0-Released/

Exim 4.98.1 mail server:

21/02/2025

A corrective release of the Exim 4.98.1 mail server is available, which fixes a vulnerability (CVE-2025-26794) that allows SQL code substitution in the internal database (Hints DB) used to store information about the delivery status of messages.

The vulnerability only manifests itself in Exim 4.98 when built with the "*USE_SQLITE*" option, which enables the use of SQLite DBMS to store Hints DB (enabled if "Hints DB: Using sqlite3" is output when running "exim -bV"). Exploitation of the vulnerability also requires enabling the ETRN SMTP command in the configuration file ("acl_smtp_etrn" must be set to "accept") and enabling the use of ETRN serialization ("smtp_etrn_serialize" must be set to "true").

https://lists.exim.org/lurker/message/20250221.121401.a509f6c9.en.html

The sixth alpha release of the COSMIC desktop environment:

22/02/2025

System76, has released the sixth alpha version of the COSMIC desktop environment, written in Rust (not to be confused with the old COSMIC, which was based on GNOME Shell). ISO images with the latest version of COSMIC, built on top of alpha builds of the future Pop!_OS 24.04 distribution for systems with NVIDIA (3.1 GB) and Intel/AMD (2.6 GB) GPUs, are available for testing. Ready-made packages for Fedora , NixOS , Arch Linux , openSUSE , Serpent OS , Redox and CachyOS are also being created .

COSMIC is being developed as a universal project, not tied to a specific distribution and corresponding to the Freedesktop specifications. To build the interface, COSMIC uses the Iced library, which uses safe types, a modular architecture and a reactive programming model, and also offers an architecture familiar to developers familiar with the Elm declarative interface language. Several rendering engines are provided, supporting Vulkan, Metal, DX12, OpenGL 2.1 + and OpenGL ES 2.0 + . Developers are offered a ready-made set of widgets, the ability to create asynchronous handlers and use adaptive layout of interface elements depending on the window and screen size.

In addition to using the Rust language, COSMIC features include hybrid window tiling and stacked window pinning (window grouping similar to browser tabs), which can be enabled in conjunction with virtual desktops. The project is also developing a Wayland-based cosmic-comp composite server . The first stable release of COSMIC is scheduled for Q1 2025.

https://blog.system76.com/post/cosmic-alpha-6-big-leaps-forward

IceWM 3.7.0 Released:

23/02/2025

The lightweight window manager IceWM 3.7.0 is now available. IceWM provides, full control via keyboard shortcuts, the ability to use virtual desktops, taskbars and application menus, and tabs can be used to group windows. The window manager is configured via a fairly simple configuration file and themes can be used. Combining windows into tabs is supported. Built-in applets for monitoring CPU, memory, and traffic are available. Several third-party GUIs for customization, desktop implementations, and menu editors are being developed separately. The code is written in C++ and is distributed under the GPLv2 license.

https://github.com/ice-wm/icewm/releases/tag/3.7.0

ubuntu uk podcast

The Ubuntu Podcast covers all the latest news and issues facing Ubuntu Linux users and Free Software fans in general. The show appeals to the newest user and the oldest coder. Our discussions cover the development of Ubuntu but aren't overly technical. We are lucky enough to have some great guests on the show, telling us first hand about the latest exciting developments they are working on, in a way that we can all understand! We also talk about the Ubuntu community and what it gets up to.

The show is presented by members of the UK's Ubuntu Linux community. Because it is covered by the Ubuntu Code of Conduct it is suitable for all. The show is broadcast live every fortnight on a Tuesday evening (British time) and is available for download the following day. podcast.ubuntu-uk.org

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Command & Conquer:

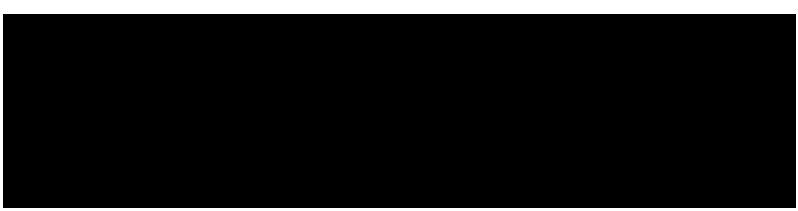
Written by Eric

Last issue, we looked at using the '&', '&&' and '||' commands as well as one or two other bash quirks. This time around, I want to explain a bit more as my proofreader gave me the "sure... but OK"routine.

When you use the ampersand at the end of a command or shell script, you basically tell it to go play in the park while you continue to type in the terminal. If you don't, it could hog your terminal. For most of us, this is not a problem, as we all use modern terminal emulators, where we can just open another tab or instance. The issue arises when you are doing something on a remote server via, say ssh, and you have a script hogging the command line, so we use the ampersand at the end to tell it to play in the park (go to the background).

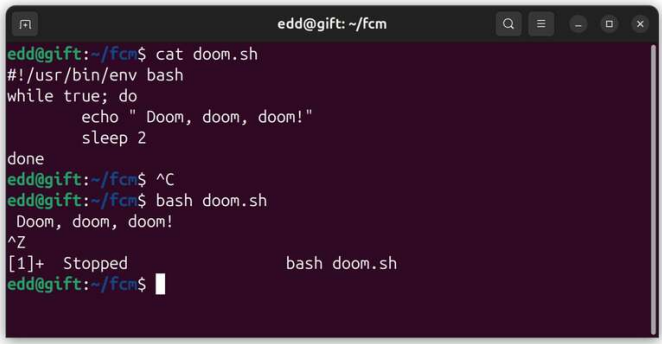
That said, we don't always have to do it one way only. We can take a look at what's cooking and put it back in the oven, so to speak. We can have multiple 'jobs' running in the background and we can switch between them as they run. Using sleep in a script is usually a good way to stretch it out, as I have no long-running scripts at hand. I have been watching a cartoon with an alien and his robot invading earth, so I made a simple script:

Code:



Save it as doom.sh and we can run it with: bash doom.sh and you will notice that you cannot type. You can press CTRL+z to stop it. Unlike pressing CTRL+c, you will see a message, with a

job number and what happened. I'll add a picture, but I urge you to do it yourself:

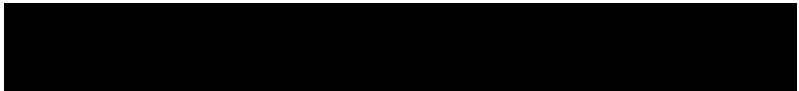


Remember, stopped does not mean it is dead or cancelled. We have the job number; [1], in my case, and I can tell it to go continue, but outside, in the park, with: bg %1 (the syntax is bg % job) and I should get my invader Zim doom warnings again. However, I can type, say, ls -la - and I will get output (even though I have a doom scroller scrolling along).

We can call the job back into the house (foreground) from the park (background) with a simple: fg %1 - the challenge here is to remember the job number, should you have lots of jobs running - but we can talk about that later. Go ahead and try it, even if your typing looks wonky, don't worry as the text you are seeing will not execute, only what you have typed. (You can just use just: %1, but it is good to know the proper way.)

Obviously in the real world, you will probably zip a large file on a server and scp it back to your machine, like say, a mongodb database. This may be gigabytes in size and take a while, but it will not have constant output like our stupid doomscroller. Here we would probably just use the ampersand at the end of the command and be done with it.

***There is a caveat here; if there is something needing user input, like in the above case, I would need to put a password in to copy to my machine, or else nothing will happen and you will feel a chop, like I did here:



[redacted]

[1] 5776

Only once you bring it to the foreground, you are asked for the password for the other machine (in my case), and only then will the copying commence and you can type bg to put it back into the background. So don't immediately put everything to the background because you can.

If you forget the job number, especially if you have multiple jobs running, you can use the 'jobs' command to check them out. This is why I always say that you should name your scripts properly, not just z.sh and x.sh and so forth (I still name mine like 'a.sh' if I was going to use it temporarily, but it is a bad habit and you shouldn't do it). When you run the jobs command, you will see the running jobs, as well as the stopped jobs (the ones you pressed CTRL+z on). When you get the running jobs printed to the screen, you may see a '+' and a '-' after the job number. The plus indicates the last job you fiddled with, be it running or stopped, and the minus means the one just before that. Not the previous job mind you, but the previous one you fiddled with, be that running it, or stopping it, or bringing it forward, or sending it backward. The reason this is handy, is that you don't need to type: bg %3 or fg %3, if it has the plus next to the three, [3]+, as you can then just type bg or fg and it will act on the one with the plus.

Your homework is to make 4 scripts. They don't need output, they just need to sleep. Then run them and randomly stop 2, with CTRL+z. Now manipulate them (you can do two at a time with bg %1 %2), but type "jobs" after each time, so you can see the plus and minus move. Easy peasy, lemon squeezy. What do you think?

If I made mistakes, please send them to:
misc@fullcirclemagazine.org

***Erik** has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.*

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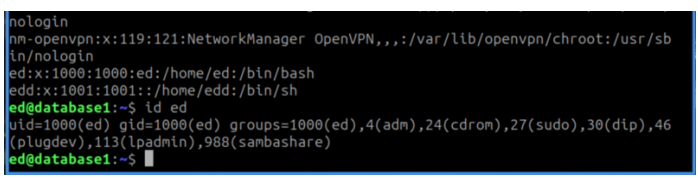
HowTo: Learn About - Part 2

Written by Erik

I recently read a book called Linux Unveiled, that unveiled only that the author, 'Half-job Hussain', had no idea how to show newbies around. I did like some of the book somewhat (very little), so I'll be stealing some of that to do a proper job for our FCM newbies. (No - I will not be using anything from that horrible book). I'll try to take a more hands-on approach, so I would ask you to keep your terminal emulators open and follow along, just to get the muscle-memory going. Now obviously I cannot cover a whole book's worth of stuff on here, but I'm thinking CPU, memory and disk here. This can then tie into some of the LPI stuff we are covering elsewhere. That means there will be homework, but I'll keep it short.

Last time we left off on the auth.log log. If you are the only user on your system, I suggest adding another. I always added ed, edd, and eddie, to my training VM's when I studied for LPI back in the day, to the point where I now do it automatically. The reason I want you to add a user or two, is so we can talk about authentication a bit more in-depth.

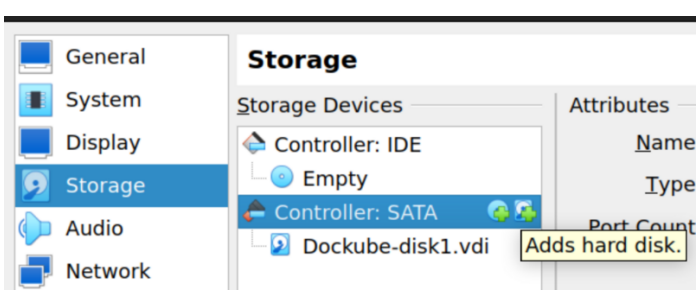
User ids should start at 1000, the second '1000' (after the colon) represents the group id. A quick way to see users from the terminal is to have a look at /etc/passwd. The file is not readable by everyone, so you would need sudo: sudo cat /etc/passwd - once we have the name of the user we wanted to have a look at, we can id the user. You can see that in the following screenshot.



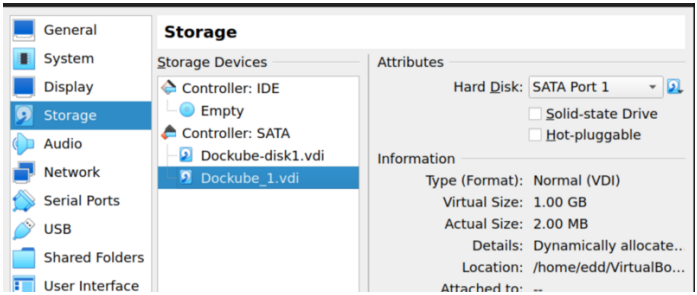
If you look closely at my screenshot, you would have noticed that ed and edd are not alike. As Ubuntu uses bash as the default shell, bin/sh indicates to me that I have not logged in with that user since its creation. It's just something no-one tells you, that you pick up - use it / don't use it. ;)

I use the: groups command often, to check if my user is in the vboxusers group at home, but as a newbie and a home user, you may not. If you do not use it, give it a spin now. If you plan on taking the LPI exam, this should be second nature to you. While I'm not going to squirrel off into users and groups in this series, I do suggest adding another user or two and "administering" them a bit. It creates that "muscle-memory" I like referencing. That brings me to memory. My first honest metal server had 4GB of memory and the VM on there had 1GB, so it was always a gamble. I used the free command and the top command so often, it's not funny. Though in the LPI exam you need to be able to explain each column, including the "shared" and "buff/cache". One of the stupider questions I got on the LPI; they removed the headers and just gave you the values and you had to label them. What that proved, I have no idea, but to the reader, beware! The other one you need to get familiar with is vmstat. (iostat and sar too, but I'll weave those into another article).

If you are using a virtual machine, let me show you how to add another drive. The reason for this is so we can fill it ;-) Under storage, find your SATA controller and look for the "+" icon. This looks different, depending on your version of virtualbox. (I'm using virtualbox 7 here as it is available in the repositories. If you want to go another route, be my guest.)



In the next window, click on “create” and then choose VDI, next, next, make it 1GB in size (if you can) and click finish. You will be brought back to the previous window and there you need to click on “choose”. Make sure the 1GB drive is selected.



If you are a physical guy, I’m sure you have an old drive lying about that you could add to your physical machine. Don’t worry, we are just going to fill it to the brim, not destroy it.

I trust you guys are OK with the: sudo fdisk -l command? We just want to see ‘where’ it is, sda, sdb, whatever. (If you are not, and you want some guidance, please e-mail *misc@fullcirclemagazine.org* and we can do a short tutorial on it).

***Erik** has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.*

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HowTo: Trading up to Linux – Part 2

Written by Alan German

In the first article in this series, we used Balena Etcher to create a bootable USB drive using the Cinnamon Edition of the Linux Mint 22 (Wilma) distro. After booting Linux using this USB, we connected to our local Wi-Fi network and ran the Firefox web browser to load OPCUG's website. So, now that we have a working Linux system, albeit running in live-USB mode, it's time to delve a little deeper into the software that comes bundled with our Linux distro.

Note that, since we are using a live-USB, any changes that we can make to the system will normally be lost when we shut down the Linux session. As a result, we will leave options such as system updates, desktop configuration, setting up Email, and software installation until we have a regular, installed version of Linux available on the computer's hard drive. Nevertheless, we can still usefully try out many of the features of Linux and, because we are running Linux entirely from the USB, we can do so without affecting the Windows operating system currently installed on the computer's hard drive.

The main menu for Linux Mint is displayed by clicking on the lm icon on the left end of the panel (the lower-left corner of the display). The result is shown in Figure 1. The available software is organized in broad categories, i.e. Accessories, Graphics, Internet, etc; however, an individual program can be accessed by typing a partial name into the search bar at the top of the menu. For example, typing "Fir" displays Firefox Web Browser and Firewall Configuration, while extending the search string to "Firef" limits the display to just the Firefox Web Browser. A single click of the mouse on this listing then launches the browser.

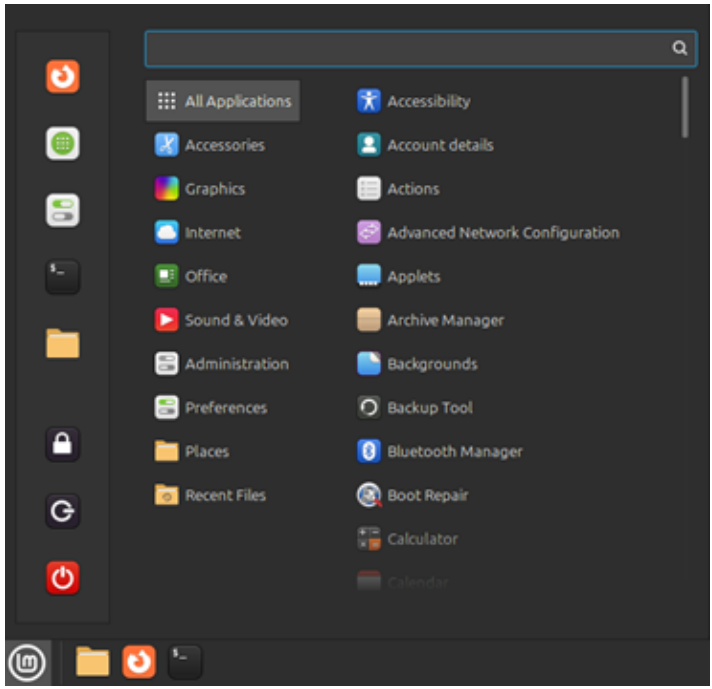

Figure 1. The main menu for Linux Mint

As might be expected, Firefox can also be invoked from the Internet category in the menu. Selecting this menu option provides access to: Firefox Web Browser, Matrix (IRC-based chat), Thunderbird Mail, Transmission (Bittorrent client), and Web Apps (convert website to desktop). With the Internet sub-menu displayed, once again, a single click on the Firefox menu item launches the browser.

So, we have seen two ways of launching an application, firstly by typing the program's name into the search box, and secondly (and perhaps easier) using the graphical menu to select a particular menu item. Later in this series, we'll see how to make launching any program even more convenient by using either a desktop shortcut or a panel icon.

Note also that there are a number of icons in the left sidebar of the menu. These are (top to bottom): Firefox, Software Manager, Settings, Terminal, File Manager (Nemo), Lock

Screen, Logout, and Shut Down. We will take a brief look at Nemo, the default file manager, and we will eventually need to access the Shut Down option in order to exit gracefully from our Linux session. The remaining entries will be best considered in detail once we are using an installed version of Linux.

So, for now, let's click on the yellow-folder icon and bring up the Nemo file manager (Figure 2). The folders displayed in the Home directory will doubtless look familiar – Desktop, Documents, Downloads, etc. – as these are mostly the same as those available in Windows. But, take a look in the lower-left sidebar of the window. Here you will see a number of disk locations, including two (64 GB) flash drives, the Windows 10 disk partition and, in my case, the dedicated data partition named DataDisk. Note also the YUMI drive which is a multiboot flash drive that is being used to run the live-USB version of Linux Mint. So, not only do we have access to the native file system for Linux, all the other drives connected to our computer, including those used by Windows, are available.

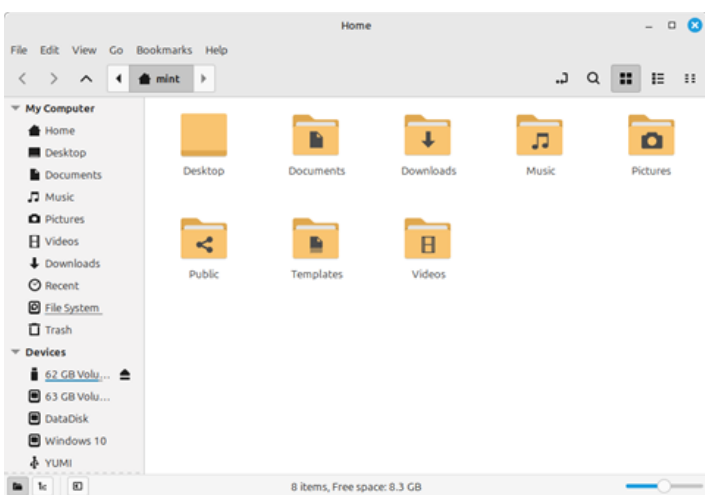

Figure 2. The Nemo File Manager

As noted earlier, the folders in the home directory are currently transient and are available for only the current Linux session. But, it is possible to retrieve and store files on other partitions

on the computer's hard drive. In fact, I am writing this using LibreOffice Writer running in the live-Linux session and editing a docx file opened from a folder in DataDisk.

Now, let's take a quick tour of the programs in the various menu categories that are available as part of the Linux Mint distro. Unlike most software that is bundled with Windows on a new computer, these applications are not "bloatware", i.e. limited-time, trial versions of commercial products. Rather, these programs are all fully functional, really useful, and free! However, this is not to say that you are limited to only the programs that are provided. There's a wealth of applications of all types that can be downloaded, installed, and used on your Linux system.

We have already encountered the menu items available in the Internet category and, indeed, have made use of Firefox, the default web browser. Another stand-out offering found here is Thunderbird, a powerful, yet easy-to-use, Email client. However, since we are using a live-USB, implementing this software is currently impractical so we will leave a detailed discussion of this item until later in the series.

Mention has also already been made of LibreOffice Writer as the default word-processing application. Unsurprisingly, Writer can be accessed from the Office menu category. This sub-menu also provides access to a Calendar app and to Library (actually the thingy app) which can be used to access recently-used and favourite documents. The full LibreOffice suite of applications is available, consisting of the well-known Writer, Calc, and Impress modules (that largely mirror the features of Microsoft Word, Excel, and PowerPoint), and also LibreOffice Draw, a graphic-design program that has no counterpart in Microsoft Office.

It is worth noting that the native file format for LibreOffice is Open Document Format (ODF). This ISO-standard file format includes specifications for text documents (odt), spreadsheets (ods), and presentation files (odp). However, LibreOffice is fully capable of opening, editing, and saving Microsoft Office files (e.g. docx, xlsx and pptx). The use of Writer and Calc, as

the main LibreOffice modules, will be largely familiar to users of Word and Excel so these may well be viable replacements when switching to Linux. For me, there is one specific idiosyncrasy in the default setup for LibreOffice Writer but the fix for this is simple and we will review both the issue and the solution later in this series.

Going back to our exploration of the main menu, let's take a look at the Graphics and Sound & Video categories. Graphics includes options for Document Scanner, Drawing (a simple drawing program), and Pix (a digital image manager). The Sound & Video category includes Celluloid (video player), Hypnotix (TV player), Rhythmbox (audio player), and an option to Install Multimedia Codecs. Hypnotix, offering access to free viewing of television programmes and movies, is an interesting application; however, a short period of testing suggests that the number of English-language channels that can be accessed is somewhat limited. Celluloid and Rhythmbox work well but a more popular option can be installed very easily and we will eventually see how to do this. Finally, for this category, there is little point in installing media codecs in the live-USB version. This task will be undertaken as part of the installation process for Linux and will be a one-time operation.

The Accessories menu has many available utility programmes, including Archive Manager (used, for example, to handle ZIP files), Calculator, Document Viewer (PDF reader), and Text Editor. The utilities included in the Administration and Preferences menus allow for tasks such as managing date and time settings, printer and Bluetooth connections, and are best left until there is a specific need to use an available option.

Finally, the Places category provides access to drives and folders in much the same way as can be achieved using the Nemo file manager, while Recent Files, as the name suggests. provides a list of files that have been accessed most recently.

Booting the computer into Linux using the live-USB checks the compatibility of the machine's hardware before any decision to install the operating system has to be made. It also provides an opportunity to try the software that is bundled with the distro

of choice and this is the option now available to us. Feel free to try composing a document in Writer, reading a PDF file using Document Viewer, playing an MP3 audio file with Rhythmbox, or any of the other available programs. One of the really good features of Linux is the broad range of applications that are packaged in a distro and instantly available for use.

Once we have made sufficient use of this testing phase, it's time to get a little more serious about Linux and install this operating system so as to create a dual-boot environment. But, let's leave this to the next installment of Trading up to Linux and, right now, let's take a break and shut down the live-Linux session.

Click on the lm icon to bring up the main menu and select the red Shut Down icon at the bottom of the left sidebar. The pop-up dialogue box includes options for Suspend (Sleep), Cancel, Restart, and Shut Down. Click on Shut Down and the computer will indeed power off "gracefully" as advertised!

Alan is a computer enthusiast based in the Great White North where he is an active member of the Ottawa PC Users' Group (*https://opcug.ca*) and maintains the LinuxNorth blog at *https://linuxnorth.wordpress.com*

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HowTo: Latex - Babel

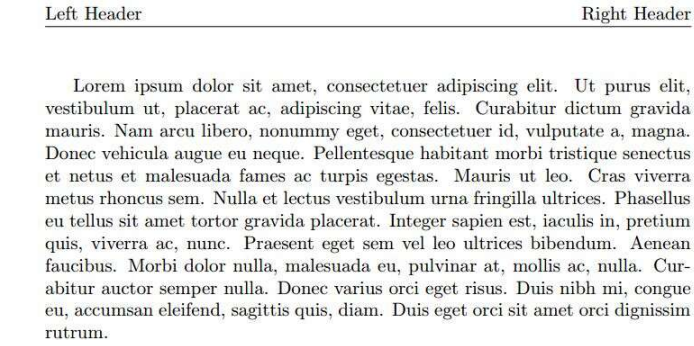
Written by Robert Boardman

Once again we will venture into the world of Latex. For those who are new to this series, in each issue I explore another facet of Latex, one of the offshoots of a remarkable, freely available, open source, typesetting software package called Tex. Developed and written by Stanford University professor Donald Knuth, it was released in 1978. Professor Knuth wanted to have a typesetting program which would print his documents with the same look no matter what operating system was used. This was imperative in mathematics and computer science - which uses complex and complicated formulas. Tex has been expanded since 1978 to make it possible for anyone to produce well designed, high quality, books (either printed or electronic) with minimal knowledge of typesetting. Tex documents look the same not only independent of operating systems but also independent of when they are generated. In the 1970s and 1980s memory and storage were both expensive. Tex was designed to be modular so the user only loaded into memory the modules needed for one particular document. For example, if a document does not have a table, then do not load the table module.

Typesetting instructions always start with a backslash followed by a keyword. The keyword may have options which are surrounded by square brackets and/or content which is surrounded by curly brackets. Latex is a document production system which uses Tex as its base. It may be the most popular document production system based on Tex but there are others including PdfTex, XeTex, and Luatex. Each system has its own supporters, its own strengths and weaknesses. Some macros (packages) are usable in only one or more systems, some macros work in all.

This time, we will explore a few more of the many packages available at ctan.org. (CTAN is the Comprehensive Tex Archive

Network). CTAN is also the web home base for the international TUG: Tex Users Group. I encourage all users of Latex to become members of TUG if possible.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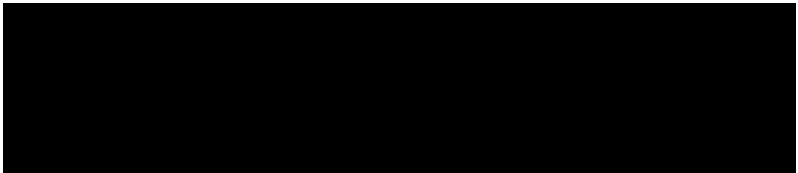
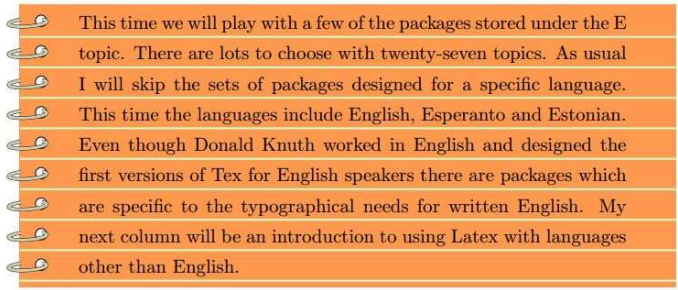
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

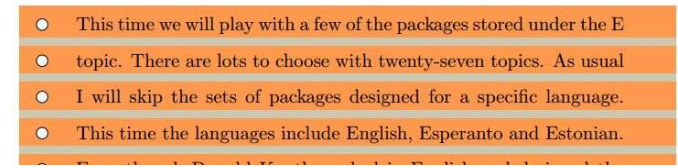
I have worked my way through the alphabetical list of topics to “F”. The number of packages that start with F is enormous. I picked just a few for this issue. The first one I will explore this time is fancyhdr, developed in 1994 and last revised in 2025 January. The user manual is 131 pages in English, it is also available in Italian. There are “training slides” available in German. It is discussed in vol 1 of The Latex Companion. Instructions for users are on the first 85 pages of the manual, the remaining pages cover implementation and change logs. This seems like a lot of information about headers and footers, document features most of us take for granted or ignore. To use the fancyhdr package issue these two commands:

There are many commands which are part of the fancyhdr package, they can be typed within the preamble to the document, before the begin{document} command. Some can also be typed in the body of the document. Read and make use of the examples in the documentation. Here is the code for the first graphic.



The next package I will take a look at is fancypar, offering five predefined decorative styles for text paragraphs according to the documentation. Again, I encourage you to read the documentation. (This manual is only 19 pages, with lots of example code and images of results.) Here is the code for the second graphic:


This time we will play with a few of the packages stored under the E
topic. There are lots to choose with twenty-seven topics. As usual
I will skip the sets of packages designed for a specific language.
This time the languages include English, Esperanto and Estonian.
Even though Donald Knuth worked in English and designed the
first versions of Tex for English speakers there are packages which
are specific to the typographical needs for written English. My
next column will be an introduction to using Latex with languages
other than English.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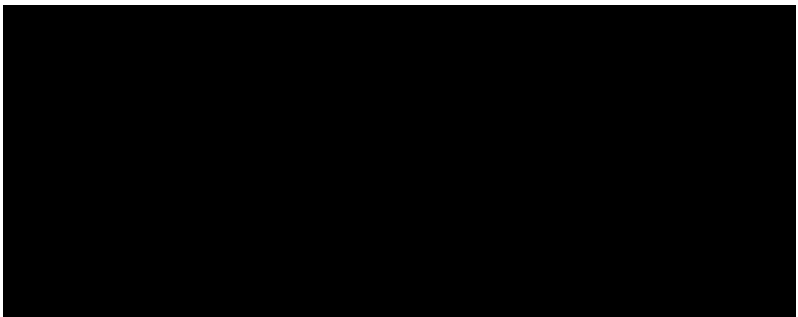
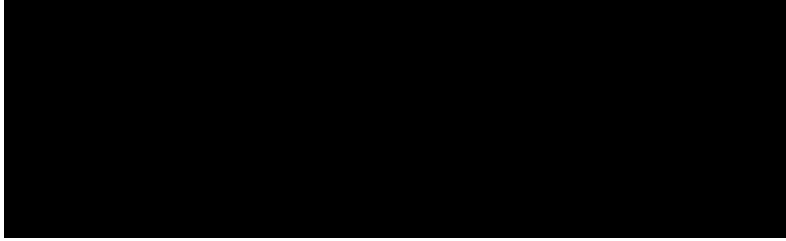



intercolo

I dropped the paragraph text out of the code because it is just sample text. You can see the results in an image. This package allows for great customization. Be warned, if you use a color name that is not recognized, the color defaults to black. If you want more (much more) information about supported color schemes and color models, read the documentation for the xcolor package.

Next, I will work with a package that could be useful for people who need assistance with layout and positioning. It is called fgruler (foreground ruler), and it puts a rule on a selected page, or all pages, at a fixed position. It can be loaded either with

or

The setfgruler command can also be used in the body of a document. Options include

unit = cm (metric ruler – default) or unit = in (inches)

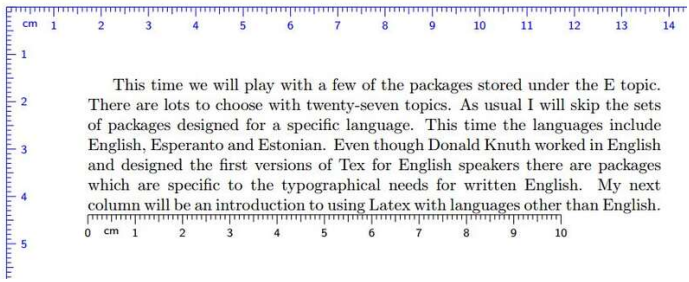
type = upperleft, upperright, lowerleft, lowerright plus five others

There are ten other option = value pairs available. Most options have several values attached to them.

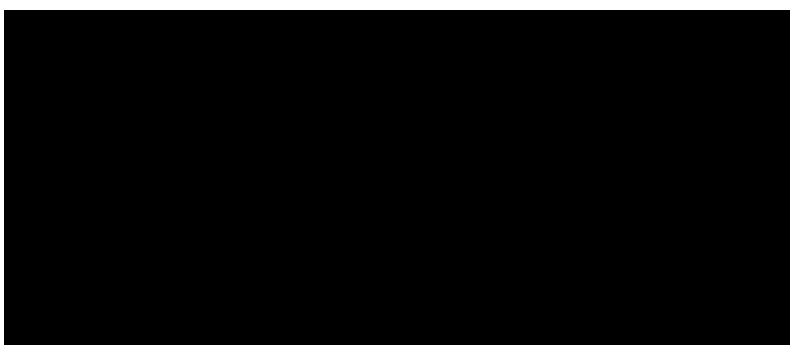
Fgruler can also be used to insert a ruler into the text with the \ruler command with its three options as shown in the code below. Again, there are a significant number of possibilities for the position, direction, length, color and style of the inserted

ruler.

The documentation is among the best I have read so far for a Latex package. There are lots of snippets of code and the corresponding examples. There are no pages in the documentation which describe the various behind-the-scenes commands used to make this package. Instead, there are seven pages of examples and illustrations followed by 28 individual pages with 28 sets of commands and results.


This time we will play with a few of the packages stored under the E topic. There are lots to choose with twenty-seven topics. As usual I will skip the sets of packages designed for a specific language. This time the languages include English, Esperanto and Estonian. Even though Donald Knuth worked in English and designed the first versions of Tex for English speakers there are packages which are specific to the typographical needs for written English. My next column will be an introduction to using Latex with languages other than English.

Here is the code. Again I deleted most of the text to save space.



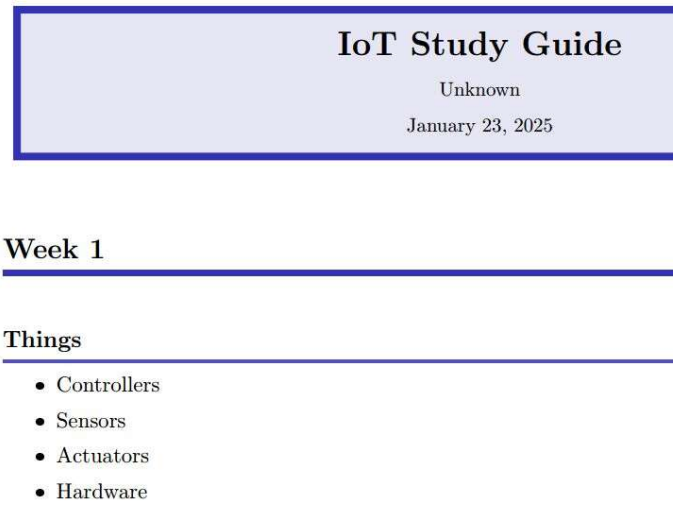
This time we will play with ...

I spent a short time with the fncychap package. It has seven predefined styles for chapter level headings. In addition, the user can also modify the existing styles or generate new ones with the information available in the documentation. What is

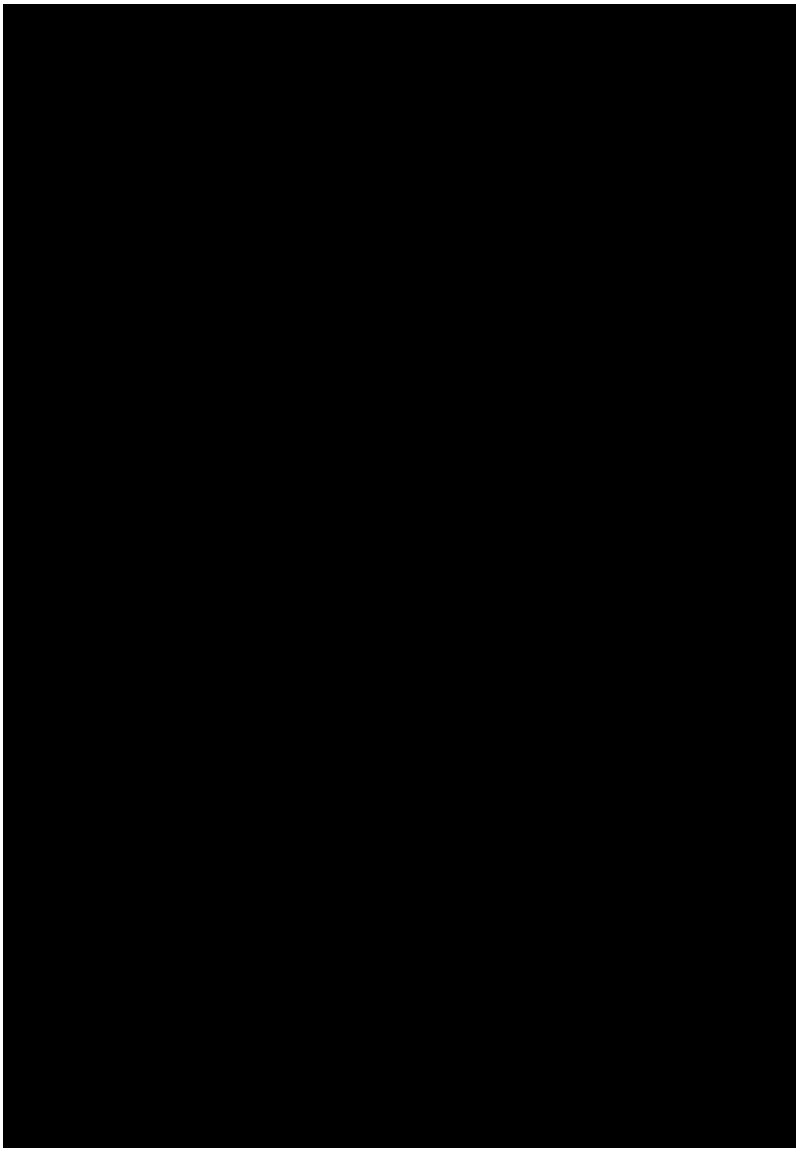
not mentioned but which should be obvious is the chapter level heading is available in the document class “book”, not in document class “article”. The book document class defaults to two-sided printing which brings its own benefits and costs.

I wanted to generate labels using Latex. The flabels package initially was attractive. However it is designed to generate a specific label for the spines of A4-sized binders. So I looked for some other package to demonstrate. Since I worked as a teacher and continue to do volunteer teaching, I chose the fancyhandout package.

Fancyhandout makes a new class of document. It uses three levels of headings, section, subsection and subsubsection, which are not numbered. As you can see from the sample, there are default colors for various items. These can be customized. The geometry package is used to generate margins of 2.25cm. These can be altered using the geometry package commands. Various other changes can be made and are explained in the documentation.



Here is the code that generated the sample. It is longer than I usually show, I hope it will be helpful. I can already anticipate using this package in my volunteer teaching. (Graphic 4)



Because my system has a limited number of F packages, I have decided to look at how to install new packages to an existing Latex system in the next issue. Hope you can join me for that important topic.

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KILOBYTE
MAGAZINE
Kilobyte Magazine is a fanzine for 8bit enthusiasts. It covers consoles, computers, handhelds and more, as well as new games for old systems. If you grew up with Commodore, Atari, Sinclair or Amstrad, this magazine is for you.
https://retro.wtf/kilobytemagazine/

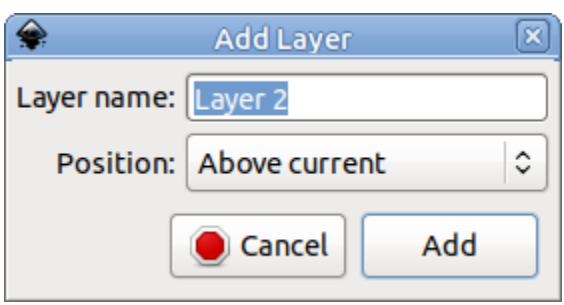
HowTo: Drawing with Inkscape - Part 154

Written by Mark Crutch

This month, I'll be covering some more of the smaller additions and alterations in Inkscape version 1.4, starting with a change that will affect your use of the program with all but the simplest of drawings.

Creating layers

The Layers and Objects dialog is a result of merging two formerly separate dialogs into one, and makes a lot of sense from the perspective of a user. But still hanging around from the days of a separate Layers dialog is the interstitial dialog that appears when creating a new layer – the one that lets you name the new layer, and select where in the hierarchy it will appear relative to the current layer. Here's how it appeared in every version up to 1.3.2.



The big change for most users is that this dialog has both disappeared and been re-designed. Before you get too confused, what I mean is that it still exists, in a re-designed form, but it's been removed from the way it was most commonly accessed.

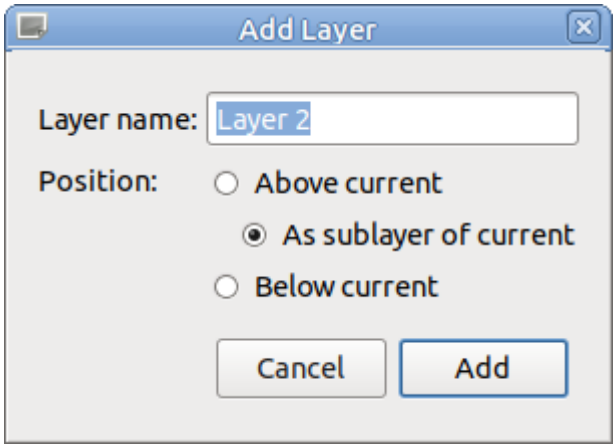
I'll wager that most users manage their layers via the Layers and Objects dialog, using the buttons at the top to add and

delete layers, and perhaps to shift them up and down in the hierarchy. In older versions of Inkscape, the "+" button would open this interstitial dialog, but no more. Now, clicking on that button (which doesn't even have a tooltip on my copy of the program) will immediately create a new layer above the currently selected one.

Obviously this results in a loss of control over the name and position of the new layer, but it's easy to rename the newly created layer by double-clicking on it, and it can be moved in the hierarchy by a drag-and-drop operation. If all you want to do is to move it up and down the list, you can use the arrow buttons at the top, but Inkscape strangely lacks left and right buttons for turning into a sub-layer, or promoting it back to a higher level layer. For those latter operations you have to use drag-and-drop.

If you still prefer to use the old dialog, then there are two ways to access it: from the Layer > Add Layer… menu, or using the Ctrl-Shift-N keyboard shortcut. Unfortunately, there's no setting or other way to make the "+" button in the Layers and Objects dialog open this dialog as it used to, which is something of a shame for those that prefer to use this approach.

As mentioned above, the dialog has been slightly re-designed. Nothing major – just replacing the previous pop-up menu with separate radio buttons. I can see what the developers are trying to achieve with this layout, with the second option indented to suggest a sublayer – but it does look a bit untidy. I'd have perhaps left the radio buttons aligned, but indented the text or prefixed it with a line or arrow. Still, it's one less click to change from the default placement than with the older version, which is an improvement.



I have mixed feelings about the change to the "+" button. In cases where layers are temporary, or not important enough to be explicitly named, it can make for a faster workflow. In other cases, splitting the creation, naming and placement into three steps will make things slower. Given that the Layers dialog already has an 'options' section, would it have been so hard to add a setting to let the user choose their preferred mode of operation? Or at least allow a Shift-click on the button to open the old dialog still.

Templates

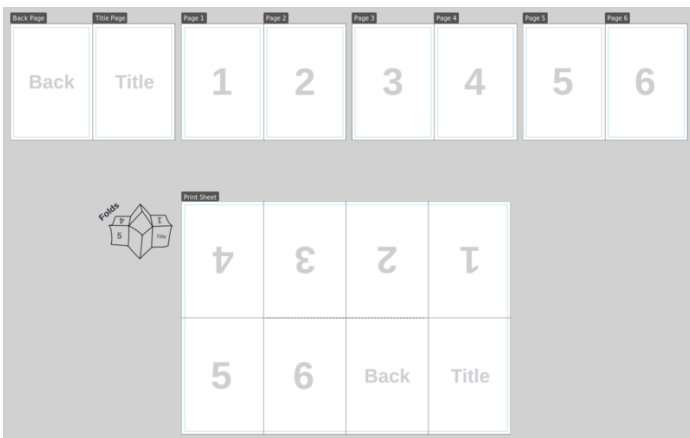
A couple of new templates have been added to the File > New from Template… dialog. They're named "Zine Booklet (US)" and "Zine Booklet (A4)", and they're the result of developer Martin Owen's daughter's interest in creating "zines" with her friends.

To some (older) people – such as myself – the word "Zine" conjures up thoughts of small run, counter-culture publications, often centred around specific bands or hobbies. Zine is short for "magazine", which makes a lot of sense given that these tended to be both physically smaller and with a lower page count than the usual news-stand fare.

Perhaps taking their inspiration from those earlier zines, the templates in Inkscape are a quick-and-easy way to create a

small 8-page booklet from a single sheet of paper, with just a single cut and a little folding. The two variants are to accommodate a starting sheet of either US Letter size (11" × 8.5") or DIN A4 size (297mm × 210mm). In either case, the resultant zine is 1/8th the size of the starting page – so A6 in the DIN system, and… well… I guess you'd need to do the math for the American version as I don't believe it's an officially named size.

On selecting either of these templates, you'll be presented with a layout something like this (you may need to zoom out in Inkscape to see it all at once):



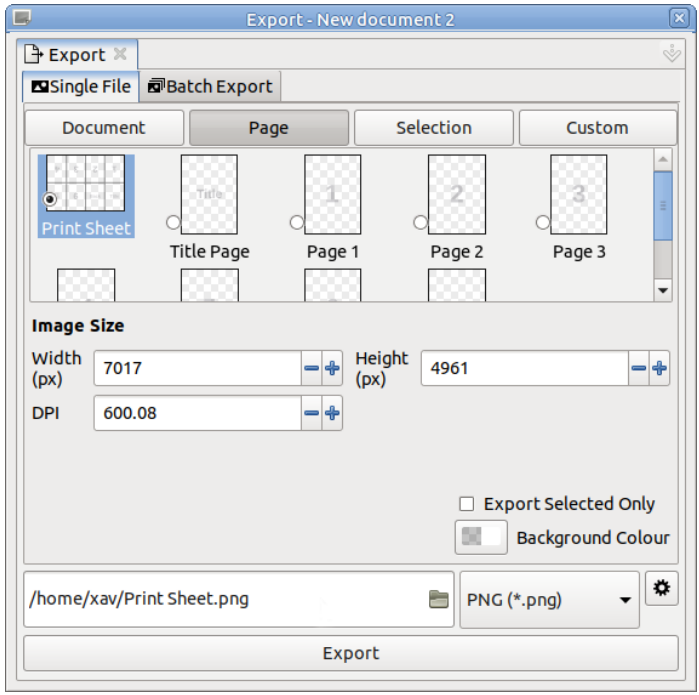
There seems to be a lot going on there, but it's actually pretty straightforward. The pages in a row at the top are the ones you work on. Put your content there, making sure to remain within the page boundaries, or clip content which overspills the left and right sides. If you don't, nothing will break, but you may end up with parts of one page appearing on another unintentionally.

The first pair of pages are used for the back and front covers of the zine in that order. Bear that in mind, because it's easy to start with the design of your front cover and automatically think it needs to be put on the first available page. The subsequent pairs of pages are the insides of the zine, in the expected order.

As you add things to the pages you'll see it automatically reflected in the 8-page layout at the bottom – with the content of pages 1-4 flipped vertically. And yes, you can remove the preset labels in the middle of each page – they're just there as guides to make the final layout a little more obvious when you first open this template.

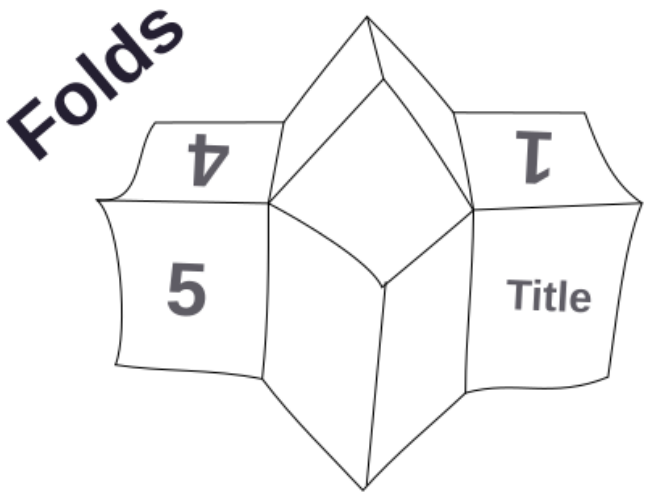
With your content complete, here comes the very important part (which could really do with some explanation on the template itself): you want to print only the single composite page from the bottom of the template – the one labelled as "Print Sheet". The easiest way to do this, if you're printing from within Inkscape, is to switch to the Pages tool and click inside the Print Sheet section so that it's selected. Then you can set the print range to "Current Page" in the print dialog.

Alternatively, you may wish to export the zine for printing from another program or on another computer. Select the File > Export menu entry, then in the dialog, ensure that the Page button is active. That should show a list of all the pages in the template – select only the "Print Sheet" option before exporting to your preferred format.



Once the page is printed you need to fold it into eight. First, make a long mountain fold along the length of the page, folding it in half to form a long thin shape with pages 1-4 on one side and the remaining pages on the other. Open it back out before continuing. Now fold it in half along the width with a mountain fold, so that you have pages 3-6 on one side, and the rest on the other. With it still in half, fold each side back on itself with another “valley” fold so that you end up with a small concertina of paper with the printed content on the insides. Open it out a little so that you can get some scissors into the doubled-up section in the middle.

Now comes the cut. This is shown as a dotted line on the template, and is easily done with a single scissor cut from the folded edge down to the valley folds. You should now be able to easily fold the zine as shown on the image in the template to produce an 8-page booklet. Trust me, it’s easier than it sounds.



I really like this addition to the program. It's a simple thing that can make for such a fun way to introduce kids to the idea of graphic design, publishing, and Inkscape itself.

Import/Export

There has been a small but useful change to the File > Export… dialog: if you enter a path for the export that does not exist on your filesystem, Inkscape will try to create the missing folder hierarchy, rather than showing a warning. I suspect that most people choose a path using the file selector, in which case this probably won't ever kick in (since the file selector shows you only paths that already exist). But consider the use case of picking a base path with the file selector, then manually adding the name of a subdirectory for your export into the field in the dialog. This will now do the right thing, and use the subdirectory if it already exists, or create it for you if it doesn't. Just watch out for typos (and case-sensitive filesystems), or you might end up 'losing' files to locations you didn't intend!

A new import filter has been added for Affinity Designer files (*.afdesign). Affinity's programs are a common alternative to Adobe's Creative Suite, for those people who want a commercially supported product, but prefer a more traditional

software licence rather than the subscription model that Adobe enforces now. Therefore it's great to see support added to Inkscape but, as is so often the case, the format is not officially documented, so there are likely to be gaps and bugs in the importer. If you have access to *.afdesign files and find there are problems with importing any of them, please do file issues via *https://inkscape.org/report* so that the filter can be improved further.

An old import filter sees a return with version 1.4. The CGM (Computer Graphics Metafile) importer was removed in version 1.0, but has been reinstated now. This is an old format, but it's an ISO standard so might be useful for interoperability with some other software or when dealing with archival material.

Finally, the PDF exporter now supports internal links between sections within the same file. See the Full Circle Magazine contents page as an example, whereby clicking on an entry jumps to the relevant page in the PDF. This is a really great addition that will greatly enhance Inkscape's capabilities as a PDF authoring tool.

That's all for the smaller, little publicized additions and fixes that I'll be covering. Next month, I'll start to look at some of the bigger headline changes that arrived with Inkscape 1.4.

***Mark** uses Inkscape to create comics for the web (http://www.peppertop.com/) as well as for print. You can follow him on Twitter for more comic and Inkscape content: @PeppertopComics*

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UBports Devices: News From The Community

Written by UBports Team

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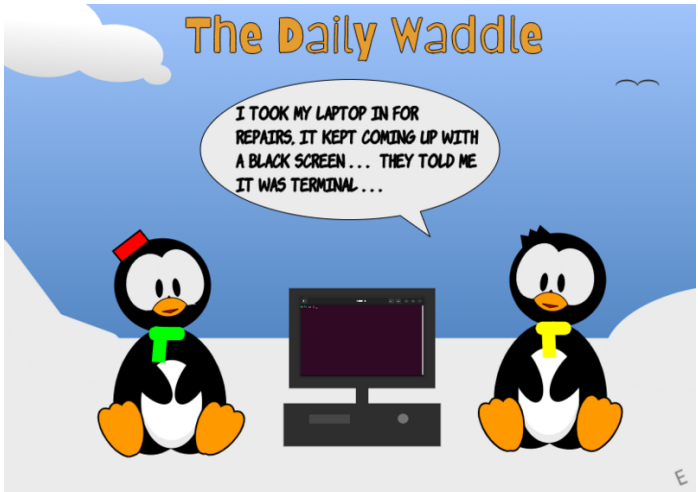

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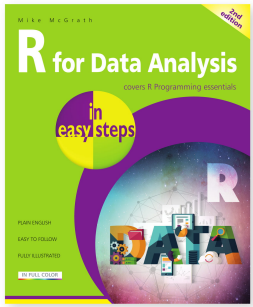

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My Opinion: Dell 7490 and Linux

Written by Art

When it comes to converting Windows and OSX beaters to efficient Ubuntu machines, I've had quite a few successes and failures in my nearly two decades of doing these conversions.

Losers are too many to list; however, I will give a hint. If it's sold online from an overseas vendor of questionable origin, comes with "virtual" instead of real RAM, is pushing an outdated Pentium or Celeron chip, and has pre-registered versions of Windows 10 or 11 - run!

While the winner's list is definitely shorter, there is one computer brand that stands out for being the easiest to convert - Dell.

Of that series, my current favorite is the 7490, mainly because there are thousands of these units out there and deals are to be had.

And here is where things get a bit odd. According to various online sources, the 7490 was released and discontinued in 2018. What's up with the short life cycle?

Various techs have advised me that the 7490 never really went out of production - as the specs got tweaked or something else changed, the numerical designation got a remake, too. I've seen some units where they were being sold as used 7490s, but that numerical designation was mysteriously missing from the underside (hocus pocus or hanky panky?).

The 7000 series still is the (mainly) Intel based "premium ultrabook" for the business crowd.The current Dell website still lists models 7440, 7450, and 7455 (ranging from $1,089 to $1,619, without added options). Seems to me Dell is going

backward on the numbering system.

Possibly due to a sales push in 2018, great numbers of the 7490 were sold. In fact, if you go to *https://www.dell.com/en-ru/work/shop/dell-laptops-and-notebooks/new-latitude-7490/spd/latitude-14-7490-laptop*, you will find a full page ad glorifying the 7490's attributes (even the website address has "new-latitude" in it), but click on any of the active buttons and you'll be redirected to another model.

I guess updating is not Dell's strongpoint (I can see having drivers and support available, but why advertise a laptop that is discontinued and has been for nearly 7 years?).

Running Windows 10 or 11 (often Pro versions), the 7490 laptops came new with 14-inch LED screens (touchscreen, if you're lucky to find one), 8 to 32GB RAM (16GB seemed to be popular), i5 or i7 processors (generally 8th generation), backlit keyboards, and M.2 SSD drives ranging from 256GB to 1TB. Included battery was initially rated for up to 9 hours putting it in the MacBook Air class for the time (my Linux Mint conversion gets well over 10 hours).

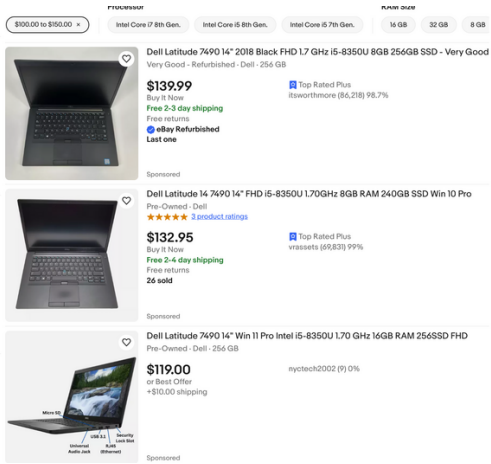
Of course, you have the usual webcam (albeit, 0.9 MP), USB and USB-C ports, micro-SD slot and an RJ-45 Ethernet port. Top of the line models can be found with Nano-SIM slots, fingerprint readers, and, a real rarity, smart card slots.

And for those of you who state, "Why bother converting, Dell sells Ubuntu computers anyway?", you might want to take a second look - while Dell's website allegedly offers the Ubuntu option, it's version 16.04. Just a smidge out of date given the current version is 24.10.

But here's the kicker. It's an option that's hard to get. Click all you want but your choices are actually limited to Windows 10 or 11. Not that it really matters - Dell offers instructions on their website on how to install the most current Ubuntu version and even makes reference to Canonical's downloads.

Another one of those, "Why bother?" moments.

While these originally went for around $1,600 in 2018, you can find VG units for less than $150 on eBay any day of the week - just look below.



In case you're wondering, there were over 250 units of various "lesser" grades on eBay the day I looked and another 500+ if you don't mind paying $200 or more for mint or NIB versions (yes, I did see a couple new/old stock, still in box offerings).

And let's not forget that just about every other refurbished website you can think of (including Amazon) probably has quite a few of these in stock.

But why risk buying an old laptop that might be limping to its inevitable death?

These are simply, and figuratively, bulletproof. Sort of like that car you used to own that clocked over 200,000 without a hitch.

What appears to be a standard plastic body is not - it's a magnesium alloy cage with textured coating applied (touchscreens get a carbon fiber lid). You'll see very few with dings or dents as a result. These were designed to be abused and keep on running.

Think I'm exaggerating? The 7000 series is 15 MIL-SPEC 810G rated. That means it can withstand heat up to 140 degrees F,

along with shocks, vibrations, dust and extreme humidity, all without failing to operate. For good measure, the military versions must also withstand rain, salt fog, gunfire shock, and explosive atmospheres.

Guess that'll pretty much cover all the bases for what the average user can come up with, unless they live in a combat zone.

As for serviceability, that's just a matter of flipping one over (cover closed, of course), loosening the 8 captive screws on the back and popping the back casing off.

Now you have unrestricted access to the SSD, RAM, wireless module and battery and should you need to replace any of these components, you won't have to break the bank:

- *The M.2 SSD is easily replaced with NVMe versions. Dell states 2TB tops, but Crucial claims they have a 4TB version that will work, also. Prices vary wildly but count on around $70 for a good 1GB version. Mine came with a 256GB SSD and I still have 177GB left after all is said and done.*
- *Batteries, from my experience, run about $30 for aftermarket versions and OEM can cost twice as much. If you're wondering, most came with 60WH batteries. Beware of vendors selling cheap 42WH versions.*
- *RAM? DDR4-2400 SODIMM. From the factory the 7490 came with at least 8GB RAM but the vast majority I've seen have 16GB. 32GB is the max but count on spending around $30 for a 16GB module.*
- *Included WiFi card was usually 802.11ac with Bluetooth. Although WiFi 7 is being released, the old standard does just fine, but if you must upgrade, count on dropping at least $30; however, be warned. Ubuntu barely supports WiFi 7 and Linux Mint does not, so Linux drivers may be an issue.*
- *And here's an extra prize. The 7490 (and most of the 7000 series) can be charged via USB-C, otherwise you'd be stuck using the Dell proprietary charger. Even if you have to buy a new charger, Dell OEM versions go for as little as $14.*

The only downside is the keyboard. Should it need replacing you'll have to bring out your best surgical skills to remove most of the internals (from the back) to access that area. Good luck with that. If you want to see a scary video, watch a couple of the YouTube specials showing the laborious procedure involved.

In my situation, I was fortunate to score a completely refurbished unit with a new battery, 16GB RAM, and 512GB M.2 SSD for $190, shipping included. Hardly a scratch anywhere and the keyboard looks like nobody ever much typed on it. Even better was that it came with the SIM card and smart card slots and fingerprint ID pad (which, in case you're wondering, doesn't work in Linux Mint and, quite frankly, it rarely worked in Windows 11, either).

My update investment? Zero. I installed a 16GB RAM chip that I scavenged off another computer and that was it.

Correction, I did have to replace Windows 11. All I had to do was convince the BIOS to accept legacy USB boots and off I went to Linux Mint. Of course, that cost nothing, too.

And that's the reason I recommend the Dell 7490. It's the ONLY laptop I've ever converted that didn't need additional drivers or had something go wonky after installing Linux. Even the venerable MacBook Air had camera issues and it's not uncommon to need a driver (or six) for other makers.

Right after installation, it booted to Mint like it never had anything else on the SSD. I even checked to make sure proprietary drivers weren't needed. Nope, all bases covered.

I guess that stands to reason since Dell did offer Ubuntu at one time.

Naturally, nothing is perfect. After all, you're dealing with a $300 or less conversion and not a $1,200+ System 76 unit.

Some may feel hamstrung by the 14-inch screen, considered somewhat smallish today; however, you can use a screen

mirroring app like Alfacast and send it to your smart TV. You could get a Dell docking station and attach other monitors, but you might be dismayed to discover those docking stations cost $200+ which is probably more than you paid for the laptop.

Plus, if you're looking for a camera to highlight your great features during Zoom meetings, buy a USB webcam. Grainy is the definition of the day for the included 7490 version, and might be the reason I could never get facial recognition to work (curiously, for the short time I tried Windows 11 it didn't work, either).

And for you artistic types, the 7490 has all the appeal of an unpainted cinder block wall. You want that aluminum look? Get a MacBook. Otherwise it's black with a touch of silver for the Dell logo.

There you have it - a guaranteed way to get a laptop to work with Ubuntu and variants without all the hassles.

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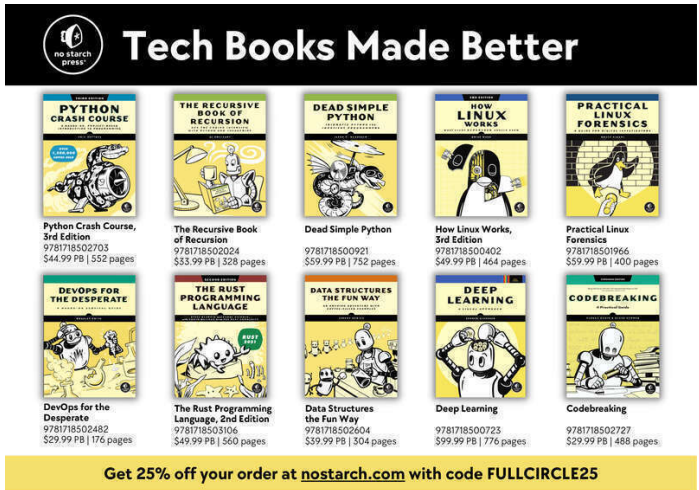

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HowTo: Write For Full Circle Magazine

Written by Ronnie Tucker

Guidelines

The single rule for an article is that it must somehow be linked to Ubuntu or one of its many derivatives—Kubuntu, Xubuntu, Lubuntu, etc.

The Official Full Circle Style Guide can be read at: *http://bit.ly/fcmwriting*

Please read this document before submitting an article. Follow the guidelines and you will have a much better chance of seeing your article in Full Circle.

Writing

There is no word limit for articles, but be advised that long articles may be split across several issues. In your article, please indicate where you would like a particular image to be. Please do not use any formatting in your document.

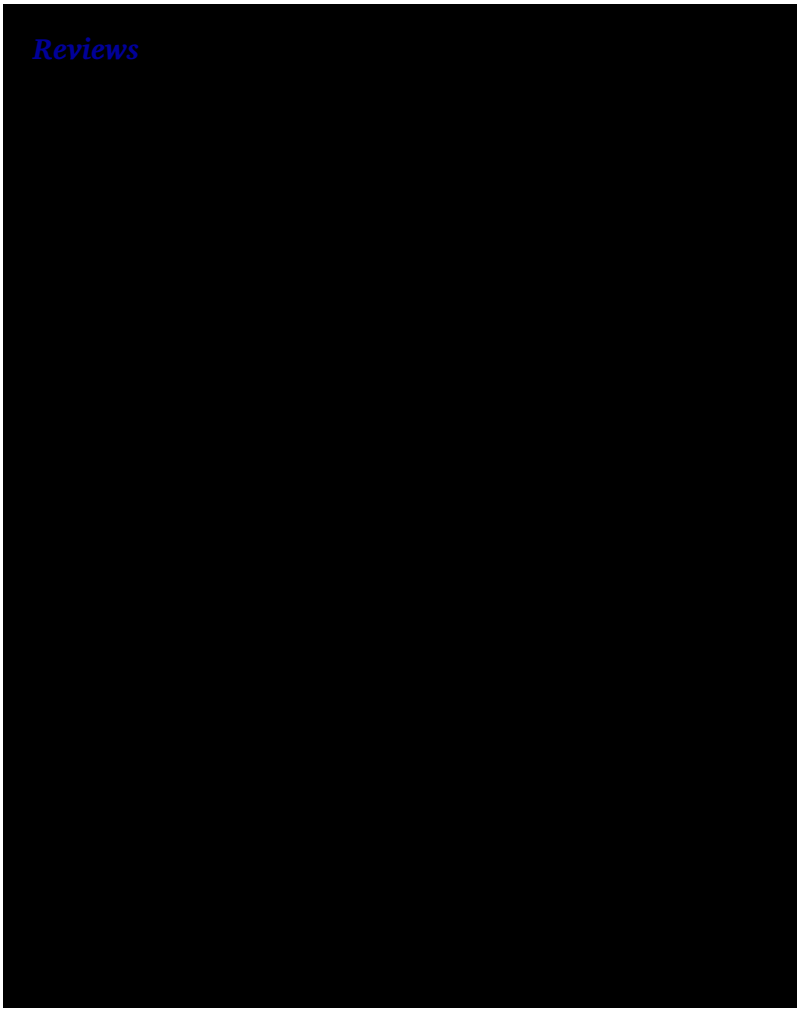
Images

Images should be no wider than 800 pixels, in JPG format, and use low compression. When you are ready to submit your article, please email it to: *articles@fullcirclemagazine.org*

Non-English Writers

If your native language is not English, don't worry. Write your article, and one of the proofreaders will read it for you and correct any grammatical or spelling errors. Not only are you helping the magazine and the community, but we'll help you

with your English!



You don't need to be an expert to write an article – write about the games, applications and hardware that you use every day.

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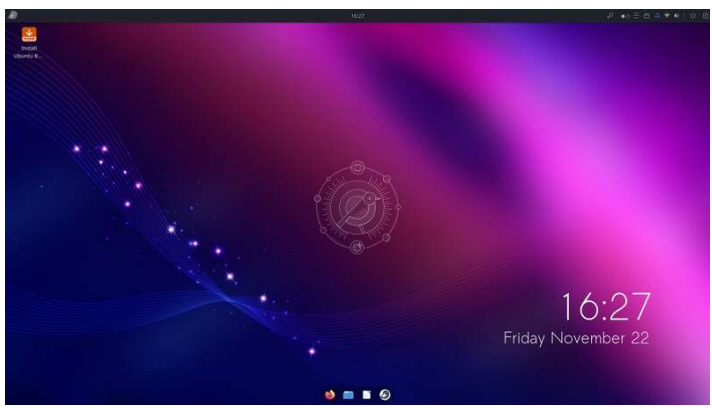
Review: Ubuntu Budgie 24.10

Written by Adam Hunt

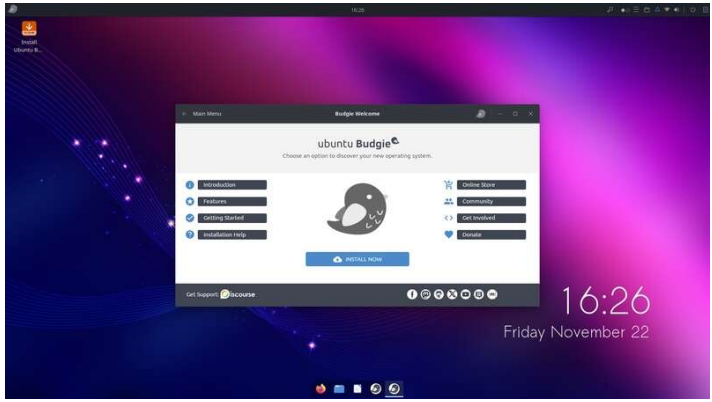
These days, most of the Ubuntu flavors are going through slow and steady improvements. Some, like Ubuntu Cinnamon, think they have a winning formula and are keeping changes to a bare minimum. Ubuntu MATE is as close to committed to staying the same as you can get. Right now, none of the flavors seem to be contemplating big changes, such as switching desktops.



Ubuntu Budgie 24.10 default deskto

Probably the flavor with the most changes happening right now is Ubuntu Budgie. The developers there have set an ambitious pace to start off this new development cycle. That said, there is nothing revolutionary on the horizon, just a large number of evolutionary updates happening.

Ubuntu Budgie 24.10 came out on 10 October, 2024 and is this distribution's 18th release. It is an interim release and, as such, is supported for nine months, until July, 2025. This release, plus the next two interim ones, will eventually lead to the next long term support version, Ubuntu Budgie 26.04 LTS, due out in April, 2026.



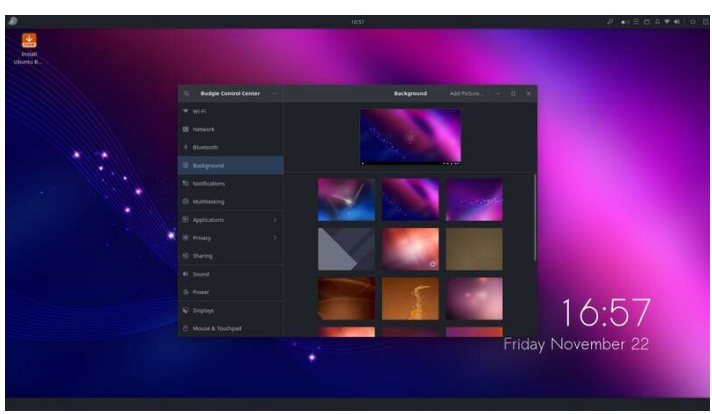
Ubuntu Budgie 24.10 Budgie Welcome

Installation

I downloaded the ISO file for Ubuntu Budgie 24.10 by BitTorrent from the official website and then did a command line SHA256 sum check on it to make sure it was uncorrupted.

This ISO file is 3.4 GB which makes it 700 MB smaller than Ubuntu Budgie 24.04 LTS. An 18% reduction in ISO size is no mean feat.

I dropped the Ubuntu Budgie 24.10 ISO file onto a USB stick equipped with Ventoy 1.0.99 and tested it from there. Ubuntu Budgie is listed as being officially supported by Ventoy and, as expected, it worked flawlessly.



Ubuntu Budgie 24.10 Budgie Control Center Background

System requirements

The recommended minimum system requirements for Ubuntu Budgie 24.10 have not changed since the last release and remain:

- *Processor speed: 2.4 GHz*
- *RAM: 4 GB*
- *Hard Disk space: 60 GB*

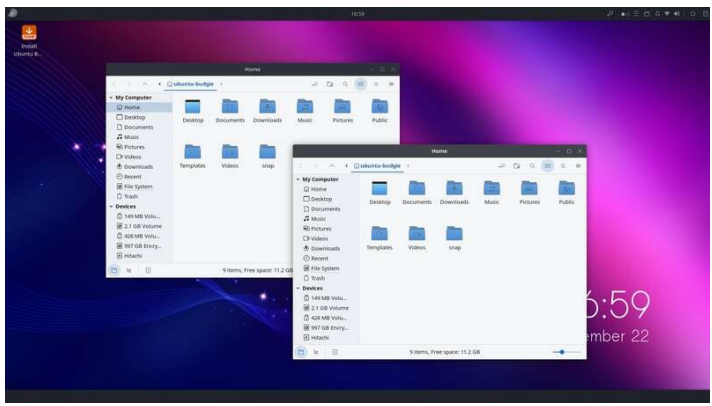
Ubuntu Budgie 24.10 Hardy Heron wallpaper

New

There is a lot that is new here, although most of these changes are fairly small and will not be really noticeable to most desktop users.

Here is a brief rundown. This release uses budgie-desktop 10.9.2. Many applets and mini-apps included now have updated translations. The upstream-provided Budgie menu now shows terminal-based applications. The newer Apple .heif image and the Jpeg-xl .jxl formats are now supported in both the gThumb image viewer and Nemo file manager, and can be set as wallpaper using the budgie-control-center. The Budgie welcome app has been updated for both 24.04 LTS and 24.10. Budgie-session has been updated as a result of Debian splitting

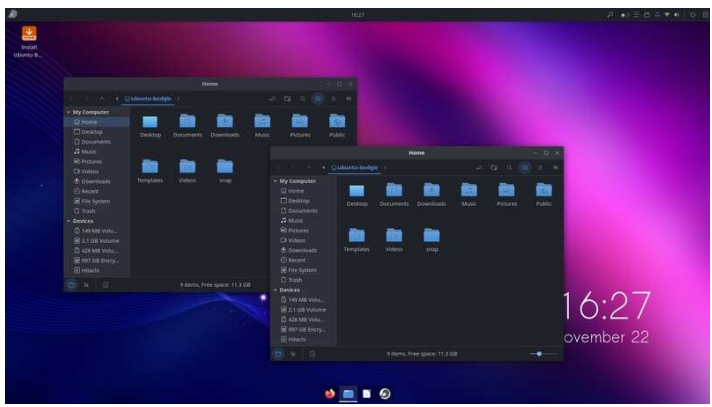
the systemd initialization system into various component parts. Slick-greeter has received a number of refinements and is now at version 2.0.5. Lightdm-settings has been updated and is now version 2.0.4. The third-party budgie-sysmonitor-applet has received a number of new sensors and changes in version 0.10.2 and has also been backported to Ubuntu Budgie 24.04 LTS. The TabSwitcher will no longer show an empty switcher when there are no windows to actually switch between.



Ubuntu Budgie 24.10 Nemo 6.0.2 Pocillo

A number of bugs have also been addressed. A Budgie Control Center bug has been fixed, as the “add picture button” failed to select an image. This has been resolved by the Ubuntu developers and has also been backported to 24.04 LTS. Two Workspace Applet bugs have been fixed, the first where clicking a window icon would not perform an intended workspace switch, and the second affecting fixed left scroll direction. A bug has been fixed for re-hiding warnings that were previously hidden in Meson 1.4.0. Version 1.4.0 started showing warnings as a result of bad C codegen in the Vala compiler, resulting in unreadable log spam, making it substantially more difficult to see the actual warnings. A Budgie Run Dialog bug has been fixed where the setting of the skip pager and taskbar was not being called during construction, which resulted in it showing up in the task switchers. An end session dialogues bug that was blocking the authentication dialogues has also been fixed. A notifications bug has been fixed, when the notification default action was

performed when the close button was clicked. A Specification Compliance bug has been fixed, where the restart/reboot icon was mistakenly called the "system-restart-symbolic" instead of "system-reboot-symbolic". This fix should improve compatibility with icon themes while retaining the icon as a fallback in the event the icon theme does not provide it. A system tray bug was fixed, where some applications would not show their intended icon. This was the result of some applications such as Cinny and Tauon not complying with the StatusNotifierItem specification by providing absolute paths to icons instead of either an icon name or icon data.

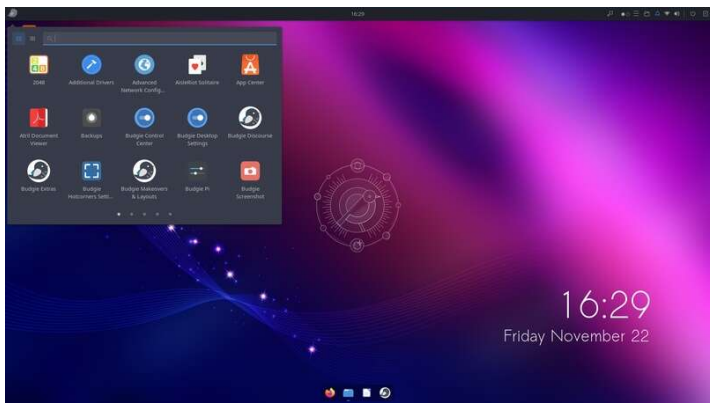


Ubuntu Budgie 24.10 Nemo 6.0.2 Pocillo-dark

In future developments, a version of Ubuntu Budgie running a Wayland protocol display server in place of the legacy X11 server is now undergoing internal project testing.

In the past, Ubuntu Budgie employed Plank, a small Mac-like dock, but it has been replaced in this release with the budgie-desktop dock instead. Plank is X11-only and it needs replacement as part of preparations for that future Wayland compatibility. The new dock looks very much like Plank except its icons do not swell on mouse-over. It has the default Pocillo color theme with the top-bar sporting a dark default theme. The previous Plank dock could be easily turned on or off but the new budgie-desktop dock can only be turned off once and then cannot be reinstated. The controls for it are no longer a simple right click to turn it off and the main menu to turn it on,

but are instead found at Budgie Desktop Settings - Bottom Dock - Applets. Clicking "Remove Panel" results in a warning that says "Confirm panel removal - Do you really want to remove this panel? This action cannot be undone." So consider yourself duly warned! With it off, there is no desktop indication of which applications are open other than using alt-tab, so leaving it on is probably the best idea. If you don’t like docks, then picking another distribution is recommended.

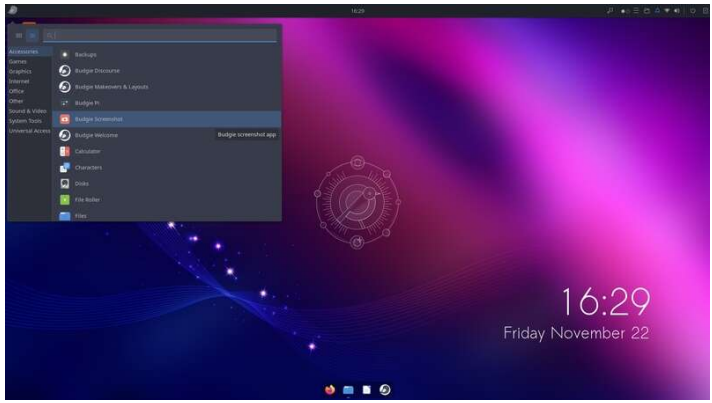


Ubuntu Budgie 24.10 grid menu

As has been the case for the last few releases, the 24.10 default wallpaper follows recent trends and is once again a modified version of the standard Budgie spacey-looking wallpaper ("ubuntu_budgie_wallpaper1") which has been in use since Ubuntu Budgie 19.04. For recent releases, the designers have been adding an Ubuntu code name motif and so, for this “Oracular Oriole” release, an oriole has been added to that spacey wallpaper. This release has 17 wallpapers, down from 28 in the last release. The 24.10 release also marks the 20th anniversary of the mainstream Ubuntu's first release, 4.10, and so Ubuntu Budgie is celebrating by adding the Ubuntu Warty Warthog anniversary wallpaper to the collection provided, plus many of the old Ubuntu wallpapers including Hardy Heron, Precise Pangolin, Bionic Beaver, Jammy Jellyfish, Noble Numbat and others.

The Linux kernel used here is version 6.11 and the initialization system is systemd 256.5. Mainstream Ubuntu

introduced systemd with its 15.04 release and, since Ubuntu Budgie is based on Ubuntu, it has used systemd since its first release, version 16.04, without any noted issues.



Ubuntu Budgie 24.10 list menu

Settings

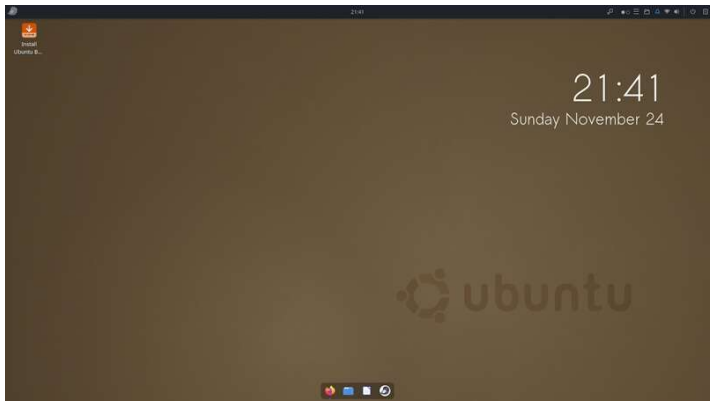
As has been the case for a while in Ubuntu Budgie, the settings are this distribution's weakest point. They remain scattered widely over many locations and are quite confusing for new users, although I assume that experienced Budgie users have found all the settings by now.

Here is where everything is:

Budgie Desktop Settings is where you find the window themes, oddly under Style - Widgets. There are 14 window themes provided with the default one still Pocillo-dark. There are also some nice lighter themes provided including Pocillo itself. You can select styling preferences (light or dark); ten icon styles, with Pocillo as the default; three cursor styles and four notification screen positions, one in each corner with top-right as default.

Budgie Makeovers & Layouts is where you find complete one-button wallpaper, window theme and icon packages, with ten to choose from. Only three of these are installed, though. To keep the ISO file size smaller, the remaining ones have to be

downloaded for use. There are also eight desktop layouts, each of which includes launchers and menus that mimic most desktop set-ups. The choices are Ubuntu Budgie, Classic Ubuntu Budgie, Redmond, Eleven, Chrome, Traditional Budgie, The One, and Cupertino.

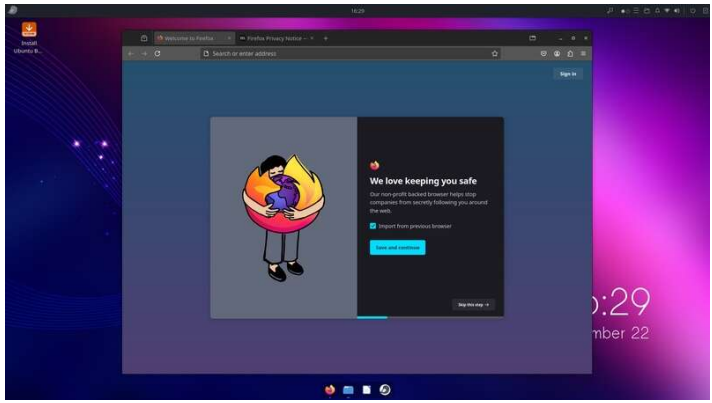


Ubuntu Budgie 24.10 Ubuntu 20th anniversary wallpaper

Budgie Extras is where the desktop applets are hidden. This time around there are only 27 applets included, 11 fewer than the last release. These add features such as calendars, weather and other functionality to the desktop. Confusingly, in Kubuntu these would be called "widgets". The Linux desktop does not have a common language!

The Budgie Control Center is a modified version of GNOME Settings for configuring such items as WiFi, wallpaper, sound and power settings.

Also generally under settings, the main menu can be set to either show application tiles in alphanumerical order or icons by category, your choice.


We love keeping you safe
Our non-profit backed browser helps stop companies from secretly following you around the web.
Import from previous browser
Save and continue
Skip this step →
:29
mber 22

Ubuntu Budgie 24.10 Firefox 131.0

Applications

Some of the applications included with Ubuntu Budgie 24.10 are:

- *Archive Manager (File Roller) 44.3 archiver*
- *Atril 1.26.2 PDF viewer**
- *Budgie Screenshot Applet screenshot tool*
- *CUPS 2.4.10 printing system*
- *Deja Dup 45.2 back-up tool**
- *Document Scanner (Simple Scan) 46.0 optical scanner**
- *Drawing 1.0.2 image editor**
- *Firefox 131.0 web browser***
- *Goodvibes 0.8.0 internet radio*
- *GNOME Disks 46.1 disk manager*
- *Gparted 1.5.0 partition editor**
- *Gpodder 3.11.3 podcast player**
- *gThumb 3.12.6 image viewer**
- *Guvcview 2.1.0 webcam application*
- *LibreOffice 24.8.2 office suite*
- *Lollypop 1.4.40 music player*
- *Magpie 0.9.3 window manager**
- *Mate Calculator 1.26.0 calculator**
- *Mate System Monitor 1.26.3 system resource monitor**

- *Nemo 6.0.2 file manager**
- *Parole 4.18.1 movie player**
- *Pipewire 1.2.4 audio controller*
- *Systemd 256.5 init system*
- *Text Editor (gedit) 46.2 text editor**
- *Thunderbird 128.3.1 ESR email client***
- *Transmission 4.0.6 bit torrent client*
- *Ubuntu App Center 1.0.0 package management system***
- *Xfce4 Terminal 1.1.3 terminal emulator*

* indicates same application version as used in Ubuntu Budgie 24.04 LTS

** supplied as a snap, so version depends on the upstream package manager

This development cycle kicks off with some changes to the default applications.

External .deb packages were previously installed using the GDebi .deb package installer but it has now been dropped as the included Ubuntu App Center can install them. The GNOME Software package management system has also been removed in favor of the Ubuntu App Center.

Due to the lack of an active maintainer, the Tilix terminal emulator has been accumulating bugs and has been swapped for the Xfce4 Terminal from the Xfce desktop. I am not sure the choice of terminals will break anyone’s heart.

Ubuntu Budgie 24.10 continues to use the Cinnamon desktop's Nemo file manager. Nemo is very functional and has lots of customization options but, in Ubuntu Budgie's case, it has no integral bulk file renaming, so installing a stand-alone bulk file renamer such as GPRename addresses the problem if you have many files to rename.

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As in the past, Ubuntu Budgie 24.10 includes the LibreOffice 24.8.2 office suite, complete except for LibreOffice Base, the database program. It is probably the least-used part of LibreOffice, but it can be installed if needed.

Conclusions

Ubuntu Budgie 24.10 starts off this new developmental cycle with a fair number of incremental upgrades, bug fixes, application swap-outs and a new desktop dock. While none of these substantially change the way the Budgie desktop looks or works, it seems to indicate that we can expect some active development over the next two interim releases, leading to an LTS version in April 2026 that will cumulatively offer quite a bit that is new.

Overall, Ubuntu Budgie continues to appeal to users looking for a distribution with a classic-style menu system, plus a dock. Its only minus as a distribution remains its widely scattered user settings.

External links

Official website: *https://ubuntubudgie.org/*

Adam Hunt *started using Ubuntu in 2007. He lives in Ottawa, Ontario, Canada, in a house with no Windows.*

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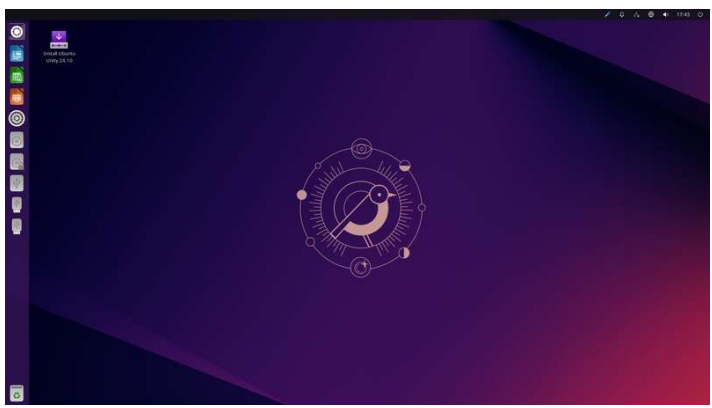
Review: Ubuntu Unity 24.10

Written by Adam Hunt

I think it is fair to say that Ubuntu Unity has hit its stride. Its early days as a Linux distribution had a few false starts, ducks and weaves, but nowadays it functions really well and has a good look, with a stable suite of default applications. It even has a page about it on DistroWatch which is a sure sign that it "has arrived" in the Linux world.



Ubuntu Unity 24.10 default desktop

The latest Ubuntu Unity release is 24.10 which was released on 10 October, 2024, along with all of the other Ubuntu flavors. This is the first interim release of a new development cycle of three interim releases before the next long term support (LTS) version which will be Ubuntu Unity 26.04 LTS, due out in April, 2026.

Because Ubuntu Unity 24.10 is an interim release, it comes with only nine months of support, running until July, 2025. Ubuntu Unity 24.10 is also the tenth release and its fifth as an Ubuntu "official flavor".

As was the case with the last release, Ubuntu Unity 24.04 LTS, this new version does not bring a lot that is new, as it seems like much of the developer effort has been going into the future requirement to get it Wayland-ready.

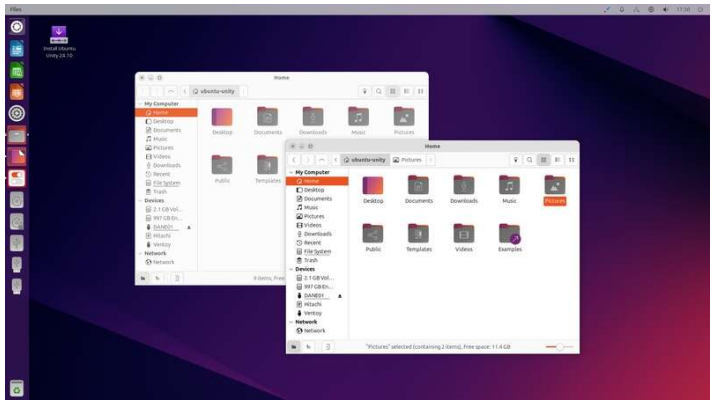
Ubuntu Unity 24.10 20th anniversary wallpaper

Installation

I downloaded Ubuntu Unity 24.10 from the official source via BitTorrent. Once I had the ISO file, I did an SHA256 sum check on it from the command line to test the download integrity and it passed.

The Ubuntu Unity 24.10 ISO file was a 3.7 GB download which makes it 200 MB bigger than the last release, an increase of 5%.

I dropped the ISO file onto a USB stick equipped with Ventoy 1.0.99 and tested it from there. Ubuntu Unity is still not officially listed as being supported by Ventoy, but it works just fine. As always, Ventoy does all the hard work of unpacking the ISO file and making it work right.



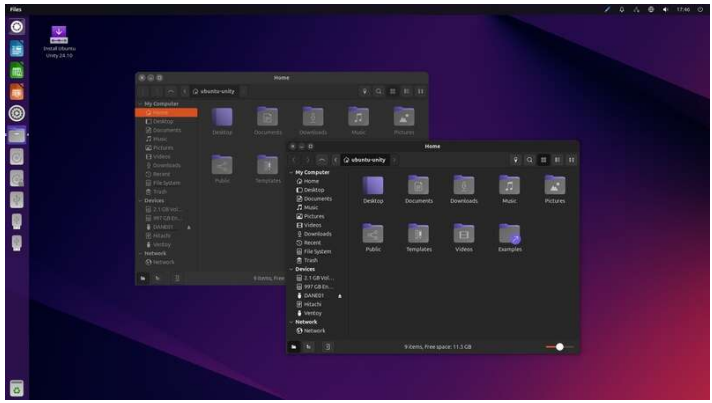
Ubuntu Unity 24.10 Nemo 6.0.2 Purple Yaru

System requirements

Ubuntu Unity does not specify any system requirements, but it is probably safe to assume that it is the same as Ubuntu 24.10 with a minimum of:

- *2 GHz dual-core processor*
- *4 GB of RAM*

It should run on any modern 64-bit hardware designed for Windows 7 and newer.



Ubuntu Unity 24.10 Nemo 6.0.2 Purple Yaru dark

New

As the release announcement outlines, the development team has been spending most of their recent time working on getting the Lomiri desktop (formerly known as Unity 8) working right on Ubuntu Unity. This is a key future investment, as the Unity 7 desktop is dependent on the legacy X11 display server and the Linux world is slowly moving away from X11 to Wayland protocol-based display servers. This work has been taking place in a separate experimental project called Ubuntu Lomiri. There is a fresh test version available, Ubuntu Lomiri 24.10, which is officially described as "significantly improved" over the last release. The eventual goal is to merge this work into Ubuntu Unity main, as Ubuntu Lomiri is not intended as a new standalone Ubuntu “flavor”.

Meanwhile, as a fresh release Ubuntu Unity 24.10 itself has only a few things that are new to kick off this development cycle. For boot-up, the unity-greeter package has been replaced by the lightdm-gtk-greeter, due to some bugs encountered when it was used in conjunction with lightdm.

Ubuntu Unity 24.10 menu

The last release had moved to using the Calamares installer and 24.10 continues with that, with some improvements incorporated.

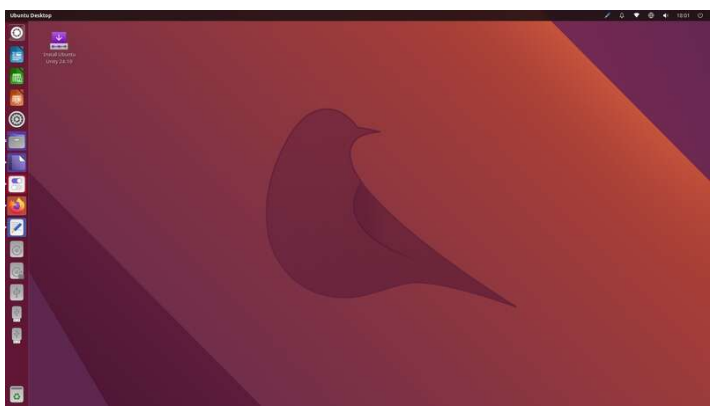
Not announced, this release also includes the Kvantum Manager theme engine, although it is not clear how it is used within Ubuntu Unity.

As with all the Ubuntu 24.10 family of releases, the included Linux kernel is 6.11 and the initialization system is systemd 256.5. Systemd has been part of Ubuntu Unity since its inception and works well.

The Unity 7.7 desktop version used in the last release is also used in this one. It continues to work flawlessly, too.

Settings

As in the past, this release continues to have its settings spread out between the regular settings menu, the panel brush icon, and the included Unity Tweak Tool. Once you find them, they all work just fine. The Unity Tweak Tool offers four window themes: Ambiance, Radiance, Yaru and Yaru-dark, plus 37 icon themes and seven cursor styles. The regular settings menu has only two window themes, Yaru and Yaru-dark. The settings menu now has 16 accent colors to choose from, while the brush icon has ten.

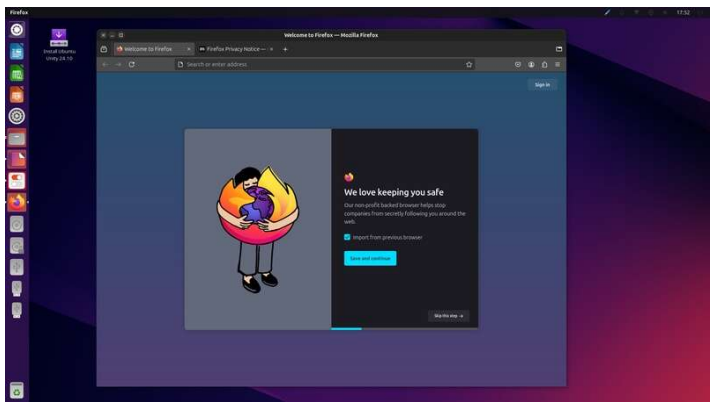


Ubuntu Unity 24.10 alternate wallpaper

Ubuntu Unity continues to offer a lot of user customization options. This differentiates it from mainstream Ubuntu with its very limited choices.

This 24.10 release is code named "Oracular Oriole" and so there is a nice, new default oriole-themed wallpaper. Also provided are 14 other wallpapers, seven of which have orioles on them.

One new wallpaper included this time is the Ubuntu 20th anniversary “Warty Warthog” one. No, this is not Ubuntu Unity's 20th anniversary, but it is the mainstream Ubuntu's and that is obviously worth celebrating! Ubuntu Unity as a distribution is actually five years old now, while the Unity interface has been around for 14 years, having been introduced in 2010 in the Ubuntu 10.10 netbook edition.



Ubuntu Unity 24.10 Firefox 131.0

Applications

Some of the applications included with Ubuntu Unity 24.10 are:

- *Archive Manager (File Roller) 44.3 file archiver*
- *Atril 1.26.2 PDF viewer**
- *Cheese 44.1 webcam application**
- *CUPS 2.4.10 printing system*
- *Document Scanner (Simple Scan) 46.0 optical scanner**
- *Firefox 131.0 web browser***
- *GDebi 0.9.5.7 .deb package installer**
- *Gnome Disks 46.1 disk manager*
- *Gnome Screenshot 41.0 screenshot tool**
- *Gnome Terminal 3.54.0 terminal emulator*
- *Gparted 1.5.0 partition editor**
- *Image Viewer (Eye of MATE) 1.26.1 image viewer**
- *LibreOffice 24.8.2 office suite*

- *Mate Calculator 1.26.0 calculator**
- *Nemo 6.0.2 file manager**
- *Pluma 1.26.1 text editor**
- *PulseAudio 16.1 audio controller**
- *Remmina 1.4.35 remote desktop client**
- *Rhythmbox 3.4.7 music player**
- *Shotwell 0.32.7 photo manager*
- *Stacer 1.1.0 system monitor*
- *Startup Disk Creator 0.3.17 USB ISO writer**
- *Synaptic 0.91.3 package management system**
- *Systemd 256.5 init system*
- *Transmission 4.0.6 bittorrent client*
- *Unity 7.7.0 interface**
- *Unity Tweak Tool 0.0.7 settings manager**
- *VLC 3.0.21 media player*
- *XTerm 394-1 terminal emulator*

* indicates same application version as used in Ubuntu Unity 24.04 LTS ** supplied as a snap, so version depends on the upstream package manager

Not mentioned in the release announcement is that the Stacer system monitor has been added. Ubuntu Unity 23.10 used the GNOME System Monitor but it was omitted in 24.04 LTS for unexplained reasons. With the adoption of Stacer, Ubuntu Unity has a default system monitor once again.

The standard file manager remains the Cinnamon desktop's Nemo. It works very well and has a lot of user-controlled settings which allows for good customization. It still lacks bulk file renaming in this implementation, however, so installing a stand-alone bulk file renamer such as GPRename is recommended.

LibreOffice 24.8.2 is supplied complete, lacking only the LibreOffice Base database application - which can be installed from the Ubuntu repositories, if desired.

Ubuntu Unity 24.10 Firefox 131.0 Full Circle

Conclusions

Ubuntu Unity 24.10 is pretty much a flawless release and includes a plethora of user customization options. In use, it works well and comes with a good suite of default applications.

The fact that this first interim release incorporates only a few very minor improvements tends to telegraph that this release cycle will not bring any big changes. I think most current Ubuntu Unity users will be happy with this, as it already works well these days ("if it ain't broke, don't fix it").

I will be keeping an eye on the Ubuntu Lomiri project as work progresses. It will be interesting to see if and when Lomiri gets merged into Ubuntu Unity as a means of bringing Wayland to Ubuntu Unity, and how that all works out.

External links

Official website: *https://ubuntuunity.org/*

***Adam Hunt** started using Ubuntu in 2007. He lives in Ottawa, Ontario, Canada, in a house with no Windows.*

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Letters

Compiled by Ronnie Tucker

letters@fullcirclemagazine.org

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Q&A

Compiled by Erik The Unready

If you have a Linux question, email it to: misc@fullcirclemagazine.org, and Erik will answer them in a future issue. Please include as much information as you can about your query.

I was listening to a podcast and the presenter was saying that the whole thing they described was just an urban legend. However, urban legends are sometimes grounded in fact (and I happened to know this was solved via reddit and was a case of bush telephone). And while *that particular version may be untrue, that does not mean everything is untrue. I mean, I am living proof that some of those “urban legends” actually happened. Let me start simple, in the early 90s, I was sub-contracting for IBM. A ticket was logged for faulty CD Rom drive (and keyboard); long story short, the user thought it was a coffee cup holder and broke the tray by putting a really large cup of coffee on it and spilling all of said coffee into the keyboard. Case two, though nobody died (versions of this one I have heard), there was a case at a hospital where a ticket was

logged for incomplete data and outages, where a cleaner would unplug medical equipment and computers to plug in a floor polisher. This happened again about 2017/2018 in a semi-government office where a worker unplugged the power to a nine-u cabinet, containing switches, to plug in a heater (during summer, I kid you not!). Now if you know government, they then log a ticket to their local IT who are too lazy, then log a ticket to a third party, and when they arrive a few days later, all is working again. Case three, not a ticket, but a warranty claim, someone who's intranet kept going off-line, but when they went to inspect it, it was always running, because the person going to look, always moved the mouse to wake it up. So whenever I hear the phrase, "oh, it's an urban legend", where the person discards it outright, I usually discard that person outright.

Q I'm learning Ubuntu and following along with a video tutorial that tells me to use the greater than sign twice, to add a line to /etc/apt/sources.list. Then I do sudo apt-get update and nothing changes; what I mean by that is it won't allow me to install the software. Is this no longer possible because of Snap packages?

> A Hey, nice to see you learning Ubuntu. Signing is important, as well as repository matching the distribution and the architecture matching yours. If those conditions are satisfied, it *should work, but things change, the official Ubuntu sources have moved to:
>
> [redacted]
>
> - try adding it here, just make sure of that "> >", and do not use ">" as it is the difference between append and overwrite.

Q I have transferred an AppImage named balena from my Linux Mint Vera laptop to my Ubuntu 24.04 PC. I made sure the file is executable and put it directly in my home folder.

When I click it, nothing happens. It worked on Mint out of the box. I can't download it directly as my network stopped working, that's why I'm transferring it. My understanding is that Mint and Ubuntu are compatible and AppImages are universal, so I'm confused as to why this is happening. I have been using Mint for 2 yrs now, but I'm still learning.

A Your best bet is to open a terminal and navigate to where you saved Balena (Etcher?) and type: ./balen <tab> <tab> to autocomplete and run it to see the output. In my case I have

but your version may differ. Common errors include you needing libFuse.so.2 (look for 2.99).

Q I have downloaded an audiobook onto Ubuntu 24.04.1 and copied it to the music folder. The never die.cue file looks like this <removed> so I open it with VLC player, but nothing plays. My VLC is 3.20 Vetrinari. It can open with a text editor: FILE "Never Die.m4b" MP4 TRACK 1 AUDIO TITLE "001" INDEX 01 0:0:00. I did not install restricted codecs, but I don't usually need them with VLC. Can I still play it without restricted codecs on Ubuntu 24.04.1?

A There are a few ways to approach this one, my first suggestion is to just play the .m4b file directly with VLC. The second option is to open the .cue-file with a different player. I tried MPV and it plays fine with my download (the Colour Out of Space.m4b/.cue). You could also check the file name, it is case sensitive in Linux, so 'Never die' and 'Never Die' are not the same file. I don't have any experience with actually using .cue files as I have never needed them, so it would be great if you could tell us all what the benefit is of loading them, instead of playing the .m4b file directly?

Q I am considering trading in my laptop for another laptop via Cash Crusaders to upgrade my 1st generation i3 to something

with a discrete graphics card. I'm so over the intel graphics tearing, trying to watch something. Thing is, I know the newer Intel chips have flaws like Meltdown and Spectre, that slow the machines down a lot. The machines in the shop all have windows, but I take my Ubuntu with me to check compatibility. I know you can turn the mitigations off, but can I see from a live image if they are on?

A I'm not 100% on what it is that you want, but you could try opening a terminal and running lscpu ? It should tell you if the CPU is affected, but these days those mitigations are baked into the BIOS/UEFI, so maybe read the notes on firmware updates?

Q I backed up my installation, before upgrading, including my snaps folder. When I look at the folders inside the snaps folder, I see this. What are all these symbols and how do I run my apps again?

A As far as I can glean from your image, it seems that the snap you are looking at was uninstalled. There should be folders in there. Those are usually what is left when a snap package is uninstalled, but not completely removed. Your best bet is to install the package again.

Q I took a course from skillshare, Learn to code with Ruby. There is no Ubuntu path, only 04 Install Ruby on a Mac and 05 Install Ruby on Windows. What is the best way to install Ruby for me?

A Open Google or Duckduckgo or your favourite search engine and type: Install Ruby on Ubuntu and add your version (eg Ubuntu 20.04). You did not give me enough information to help you the right way.

Q I am discovered old podcast series Impulse Project on my brother USB drive, it is ripped from website with xm files, how to open?

A Their website is down, so I cannot check, but I think

it is tracker music. Luckily for you there is Milky Tracker that you can find in your App Center; that should work on most versions of Ubuntu.

Q Why is there ‘non-whql’ driver on driver website?

A If you are new to Ubuntu, welcome! First lesson, WHQL = Windows Hardware Qualifier Labs – Windows drivers do not run on Linux. If you need drivers – open your Ubuntu menu and start typing ‘drivers’ it will come up there as “Additional Drivers”. Open that and it will populate with the available drivers for your machine.

Q I am trying to install Pygame Zero on Ubuntu, but I keep getting this:. It should just be pip install pgzero and it won’t work.

A It looks like your version of Python is too new for your version of Pygame. Either get a newer version of pygame or an older version of Python 3. (I see it says version 3.7 of Python, so maybe try that.) Secondly, if ‘pip install’ does not work, try ‘pip3 install’.

Q I have some books I downloaded, like ‘The Secret Diary of Hendrik Groen, 83 1_4 Years Old.mobi’ and when I double-click, it brings up Abiword. Then after a minute, Abiword crashes (Abiword is not responding). Then I have to force quit, as wait has no effect. This is Ubuntu 24.04.1 LTS please.

A I’m just putting it out there, .mobi is a horrible format… Now to solutions. Try getting it in any other format, other than .mobi, (epub, pdf?), or install a reader for .mobi files, like Foliate? (I think, I’d need to check). Abiword is not the right application to try and open .mobi files. Right click on the .mobi-file and choose “open with” and be sure to check Foliate as the default application to open .mobi files.

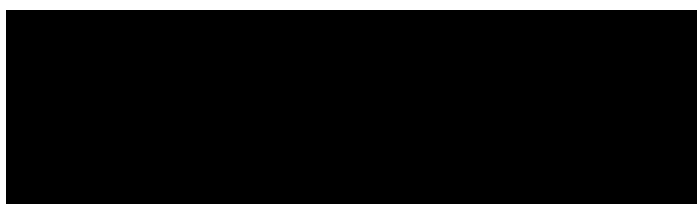
Q My Ubuntu 24.04 Gnome is installed on a computer in the study. The little plastic screw part on the antenna broke off. I

am getting a red icon in the top right. I'm assuming it wants updates. When I click on that, there is a pause and nothing happens, locking my PC up for a minute. Any idea how I can fix that?

> A Erm... buy another antenna? You can hit the super key and type updates and in that updates panel, defer your updates to like once a month, until your antenna is replaced.

Q When I type lsb_release on Ubuntu 24.04, I get nothing back, eg. werner@amdpc:~$ lsb_release -v No LSB modules are available. Is this because I opted for the minimal install or do I need to use another command now?

> A Interesting, I checked for you and I also get the error, but I get information back:



> The man page says it all. Read the description paragraph. I am not sure *when it changed (but it feels like someone else also asked this recently).

***Erik** has been in IT for 30+ years. He has seen technology come and go. From repairing washing machine sized hard drives with multimeters and oscilloscopes, laying cable, to scaling 3G towers, he's done it.*

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Ubuntu Games: CardBob

Written by Erik

Website: *https://mad-cookies.itch.io/cardbob*

Price: $9.99 Steam and GoG

Blurb: *“Explore sci-fi dungeons, collect loot, and negotiate the highest prices in this action roguelite, set in a 3D cardboard world. Grow stronger with each attempt. Be the unlikely hero.“*

So you are a cardboard robot, who finds a dungeon entrance in his room. What do you mean, you need a story to enjoy mindless violence? This is a game that previously gave me issues extracting the content, but with engrampa installed and all my compression programs to boot, I am cardbob-less no more! Yay! Though, now I wonder where my bob card is (banking card for kids).

At first, I was, like, this dude is stiff... but you are cardboard, so the stiff character is given a pass, but yes, but no, but yes, but no, but yes, and then she said...

Installation:

The game is a whole 240MB, which gets a giant thumbs up from me. It uses the standard GOG games installer, giving one a next-next Windoze experience. There were no issues here.

Cardbob
In a world of cardboard and metal, our hero named Cardbob wakes up finding a dungeon entrance in his room.
Security robots guarding treasures of old reside down below whereas merchants await on the street.
Riches found need to be sold, but their price is to be agreed.
Go now, and say hi to Door-e.
[E] BEGIN

Once installed, the game did try its luck with port 57343 for some reason, but on 127.0.0.1, and once only. This makes me think it has something to do with the Godot Engine, rather than anything nefarious. (If you block this request, the game does not start.) However, I kept Ubuntu on “flight mode”, just in case.

First Impressions:

I am biased when it comes to isometric games. I love ‘em to bits. The look is consistent, with cardboard rimming the playing area (even though the text and interface spots are very “electronic”, to remind you that CardBob is in fact, a robot). The movement feels smooth, and the controls feel responsive, even though I’m faffing my way around with the trackpad, as I’m too lazy to go find batteries for my mouse.

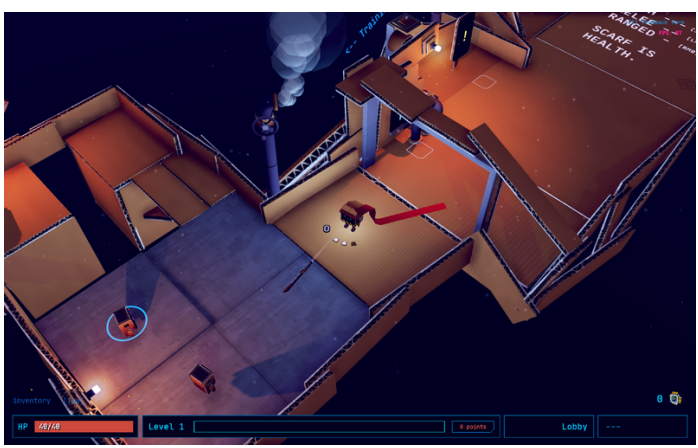
With a flimsy premise that I gave you earlier, you might think, well what is the point? You see, the game puts you in the shoes of Cardbob, a hi-tech card-board robot with access to a mysterious dungeon system in his basement. You collect items to sell to traders later on. You have to negotiate for the best price when selling the dungeon items to NPCs. The description says: Look after your shop in a sci-fi cardboard universe? (Yup, made me curious too!). Go on dungeon runs to collect rare items and negotiate their price with traders. Meet security robots that try to stop you, bosses, and unique types of rooms!

Grow stronger (???) and become the top trader in the town of neon lights and cardboard robots...

And don't get wet, I suppose?

Gameplay:

The game controls with the standard WASD keys and a mouse or a controller. It very much feels like an eggsbox or praystation game. Your character has a long-range and short-range attack, with either the left or right click. This is where I ran into my first issue, in the training ground. (Feel free to read the rest of the paragraph in Skeletor's voice). You see, when I go down to beat the kidnapped kids in my basement, sometimes one gets in the way and catches a stray shot from my belt, but I always end up getting my target; here it seems CardBob's targeting system and mine do not overlap. I will post a screencap of me targeting one dummy with my mouse (see green circle) and CardBob maliciously and viciously attacks the opposite, unarmed, innocent dummy, over and over again! The horror, the villainy, the utter contempt for cardboard life! You also have a cool scarf. Why? This is not clear, but what is clear is that your life is tied to said scarf, or is it simply a Rambo headband, misgendered as a scarf? We may never know...



It is not clear what motivates and drives our cardboard robot to harm others, but they did mention running a shop. Is it social

commentary on how we profit on the deaths of others, or simple terrorism? I mean CardBob wears erasers for shoes, is it to erase his footprints as he makes them, or is it to erase his past, like it never happened? Then did he really target the wrong training dummy or are we judging him?

apparently not as black as my sense of humour...

Graphics:

The game is visually impressive, with good-looking dungeons that appeal to my nostalgia, where in my younger years, I would build dungeons from cardboard for DnD sessions. It is a mixed bag though, with some low-poly stuff mixed into the soup that make up this game. I love that when you “die” in the dungeon, the cut scene is of a long sleek car pulling up and tossing you to the curb, before driving off. My fans did go from zero to full taps when I entered the dungeon, but I did have my Nvidia server settings set to “performance”, so there’s that...

Sound:

There are tunes for every occasion, and I love it. Enter a new area and you are treated to a new tune. The sounds felt a bit underwhelming, though. When you enter the first Dungeon, there are these... well let’s call them tanks for now, that fire cannon balls at your character. I would have preferred a bit

more punch, I mean those are bombs after all. Bombs explode and have thud and crash sounds, not pops. My sword, “the chopstick”, also needs a satisfying sound when hitting enemies, even if it is the plink of a chopstick, you know what I mean? I don’t expect it to drown out the music, but keep me interested.

Conclusion:

I’m not sure what the game was trying to be, or what the original plan was, but it does feel like a mish-mash of ideas, with no clear intent. That said, it is some mindless fun and that is all that counts (he says looking at the clock and it says 23:10 already). With the fun, there was also some frustration, especially with the pathing of my chopstick, not returning to my character immediately, but taking the long way home, smelling the flowers in the fields where I was two seconds ago. This lazy pathing and slow return did not make the game feel ‘fast-paced’, rather dreamy and ‘floaty’. Nothing jumped out at me, everything felt middle of the road and I don’t know if I did something wrong, or I’m just bad at video games, but I did not get to run my “shop” as I was promised.

I will play this some more, just for the playing sake, instead of playing and analyzing everything and dying, while looking around. (As I said, the cardboard world is fascinating.)

You can definitely do worse for ten bucks, but the gameplay is there, so you won’t waste your money. Playing a piece of cardboard tho...

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Patrons

The current site was created thanks to **Lucas Westermann** (Mr. Command & Conquer) who took on the task of completely rebuilding the site, and scripts, from scratch, in his own time. The Patreon page is to help pay the domain and hosting fees. The yearly target was quickly reached thanks to those listed on this page. The money also helps with the new mailing list that I set up.

Several people have asked for a PayPal (single donation) option, so I 've added a button to the right side of the website.

A big thank you to all those who've used Patreon and the PayPal button. It's a HUGE help.

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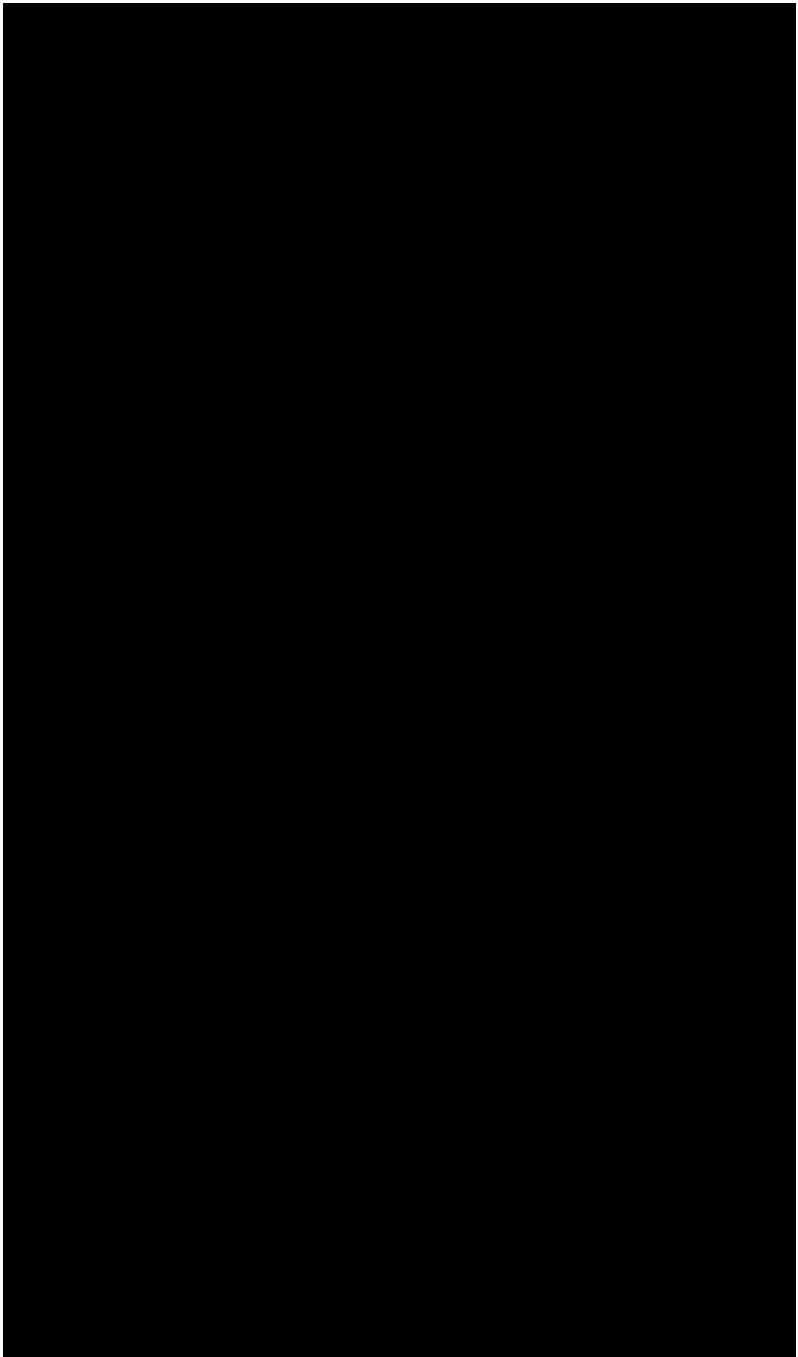

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We are always looking for new articles to include in Full Circle. For help and advice please see the ***Official Full Circle Style Guide*** *: http://bit.ly/fcmwriting*

FCM #215 Deadline: *Sunday 9th March 2025.*
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